



**ASSOCIATION OF
GOVERNMENTS**

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Ventura County: Judy Mikels, Ventura County • Glen Becerra, Simi Valley • Carl Morehouse, San Buenaventura • Toni Young, Port Hueneme

Orange County Transportation Authority: Lou Correa, County of Orange

Riverside County Transportation Commission: Robin Lowe, Hemet

Ventura County Transportation Commission: Keith Millhouse, Moorpark

MEETING OF THE

TRANSPORTATION CONFORMITY WORKING GROUP COMMITTEE

**Tuesday, November 28, 2006
10:00 a.m. – 12:00 p.m.**

**SCAG Offices
818 W. 7th Street, 12th Floor
San Bernardino Conference Room
Los Angeles, California 90017
213. 236.1800**

If members of the public wish to review the attachments or have any questions on any of the agenda items, please contact Jonathan Nadler at 213.236.1884 or nadler@scag.ca.gov

SCAG, in accordance with the Americans with Disabilities Act (ADA), will accommodate persons who require a modification of accommodation in order to participate in this meeting. If you require such assistance, please contact SCAG at (213) 236-1868 at least 72 hours in advance of the meeting to enable SCAG to make reasonable arrangements. To request documents related to this document in an alternative format, please contact (213) 236-1868.



Transportation Conformity Working Group

AGENDA

		PAGE #	TIME
1.0	<u>CALL TO ORDER</u>	Jennifer Bergener, OCTA	
2.0	<u>PUBLIC COMMENT PERIOD</u> Members of the public desiring to speak on an agenda item or items not on the agenda, but within the purview of this committee, must fill out a speaker's card prior to speaking and submit it to the Staff Assistant. A speaker's card must be turned in before the meeting is called to order. Comments will be limited to three minutes. The Chair may limit the total time for comments to twenty (20) minutes.		
3.0	<u>CONSENT CALENDAR</u>		
3.1	<u>Approve Minutes of October 24, 2006 Meeting Attachment</u>		1
4.0	<u>INFORMATION ITEMS</u>		
4.1	<u>RTIP Update Attachment</u>	John Asuncion, SCAG Ken Lobeck, RCTC	6 20 minutes
4.2	<u>RTP Update</u> No report this month.	SCAG Staff	
4.3	<u>Review of PM Hot Spot Interagency Review Forms Attachment</u>	TCWG Discussion	16 30 minutes
4.4	<u>Review of Qualitative PM Hot Spot Analysis</u> No review this month.	TCWG Discussion	



Transportation Conformity Working Group

AGENDA

		<i>PAGE #</i>	<i>TIME</i>
4.5	<u>PM Hot Spot Process</u>	TCWG Discussion	10 minutes
4.6	<u>TCM Update Attachment</u>	Tony Louka, Caltrans District 8	66 15 minutes
4.7	<u>AQMP Update</u>	SCAQMD	15 minutes
5.0	<u>CHAIR'S REPORT</u>		5 minutes
6.0	<u>INFORMATION SHARING</u>		10 minutes
7.0	<u>ADJOURNMENT</u>		

The next meeting of the Transportation Conformity Working Group will be on Tuesday, January 23, 2007 at the SCAG office in downtown Los Angeles.



**TRANSPORTATION CONFORMITY WORKING GROUP
of the
SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS'**

**October 24, 2006
Minutes**

THE FOLLOWING MINUTES ARE A SUMMARY OF ACTIONS TAKEN BY THE TRANSPORTATION CONFORMITY WORKING GROUP. AN AUDIOCASSETTE TAPE OF THE ACTUAL MEETING IS AVAILABLE FOR LISTENING IN SCAG'S OFFICE.

The Transportation Conformity Working Group held its meeting at the SCAG office in Los Angeles.

In Attendance:

Mahmoud Ahmadi	MMA
John Asuncion	SCAG
Grace Balmir	FHWA/FTA Metro Office
Jennifer Bergener	OCTA
Clay Hinkle	CH2M HILL
Lori Huddleston	LA MTA
Jessica Kirchner	SCAG
Thoa Lee	Caltrans
Betty Mann	SCAG
Jonathan Nadler	SCAG
Michelle Noch	FHWA
Sylvia Patsaouras	SCAG
Eyvonne Sells	AQMD
Arnie Sherwood	ITS Berkley/SCAG
Carla Wakecka	Transportation Corridor Agencies
Leann Williams	Caltrans 7

Via Teleconference:

Mike Brady	Caltrans Headquarters
Ben Cacatian	Ventura County APCD
Paul Fagan	Caltrans Dist. 8
Ilene Gallo	Caltrans Headquarters
Sandy Johnson	Caltrans, District 11
Ted Matley	FTA Region 9
Jean Mazur	FHA
Dennis Wade	CARB
Andrew Yoon	Caltrans District 7

**TRANSPORTATION CONFORMITY WORKING GROUP
of the
SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS'**

**October 24, 2006
Minutes**

1.0 CALL TO ORDER

The Honorable Jennifer Bergener, Chair, called the meeting to order at 10:05 a.m.

2.0 PUBLIC COMMENT PERIOD

There were no public comments.

3.0 CONSENT CALENDAR

3.1 Approval Item

5.1.1 Approve September 26, 2006 Meeting Minutes

There were two corrections to the minutes: 1) include Carl Walecka, TCA, to the teleconference attendees, 2) change Transportation Communications Committee to Transportation Conformity Working Group in the block header. MOTION was made to APPROVE the minutes as amended. MOTION SECONDED and UNANIMOUSLY APPROVED.

4.0 INFORMATION ITEMS

4.1 RTIP Update

John Asuncion, SCAG, stated that the RTIP was approved by the Federal Agencies earlier in October. SCAG also received approval for the conformity determination for the RTIP, as well. The County Commissions are currently working on their amendment for the 2006 RTIP which will be forwarded to SCAG staff on December 3rd.

Staff anticipates that the first amendment, the State Highway Operation and Protection Program (SHOPP) Amendment, would get to the Federal Agencies relatively soon. The second amendment is anticipated sometime during the first of December.

4.2 RTP Update

There was no report this month.

**TRANSPORTATION CONFORMITY WORKING GROUP
of the
SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS'**

**October 24, 2006
Minutes**

4.3 Review of PM Hot Spot Interagency Review Forms

The TCWG considered five interagency review forms to determine whether the projects were of air quality concern and required a qualitative PM Hot Spot analysis. The review concluded the following:

ORA000173: Not a POAQC
RIVLS08: Not a POAQC
SBDLS05: Not a POAQC
ORA020112: Not a POAQC
ORA000111: Not a POAQC

Jonathan Nadler, SCAG, inquired if these types of projects need to be reviewed by the group each time since they have been determined a number of times to not be projects of air quality concern. The committee agreed that they would try to categorize types of projects that generally may not be POAQC. This effort would start at the TCWG PM hot spot subgroup before being discussed at the TCWG.

4.4 Review of Qualitative PM Hot Spot Analysis

Andrew Yoon, Caltrans District 7 gave a brief summary on the analysis on LA0D45.

The committee concluded that staff would inquire with Karina O'Conner, EPA, if she had any further comments and if she does they will be discussed at next weeks subcommittee meeting. If she does not, staff will move forward and announce that the committee found the analysis deemed acceptable for NEPA circulation.

4.5 PM Hot Spot Process

Jonathan Nadler, SCAG, announced that Tony Louka was not available to speak on the workshop held in San Bernardino last week. Mr. Nadler stated that it was very well attended and both sessions went well.

**TRANSPORTATION CONFORMITY WORKING GROUP
of the
SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS'**

**October 24, 2006
Minutes**

4.6 TCM Update

Ben Cacatian, Ventura County APCD, stated that the VCAPCD is developing a new Air Quality Management Plan for the federal 8-hour ozone standard. As required by the Clean Air Act, the APCD has performed a review of Reasonably Available Control Measures (RACM).

The APCD stated with a list of candidate RACM which was prepared in consultation with SCAG. The TCMs on the list were derived from those identified in the Clean Air Act, other MPO's, and other air districts. The RACM has been reviewed by staff at the Transportation Commission, BCTC, and the Transportation Technical Advisory Committee, TTAC, and the Transit Operators Committee.

Mr. Cacatian noted that in order for TCMs to be considered as RACM, they must be both technical and economically feasible, and they must advance the attainment date by at least one year. Based on the APCD's comprehensive review of the TCM's, none of the TCM's that were determined to be infeasible met the criteria for RACM. The APCD expects that implementing the TCM's identified as feasible will not advance the attainment day one year.

Ventura APCD anticipates having the draft of the 8-hour AQMP complete by early January 2007.

4.7 AQMP Update

Eyvonne Sells, AQMD, stated that she was unable to provide a presentation on the draft AQMP as a result of the AQMD's technical staff holding workshops within the basin.

An Ozone Roundtable has been scheduled for October 31. The purpose of the Roundtable is for the AQMD to try to find any and all potential emission reductions.

The comment deadline for the draft is December 1, 2006. The AQMD hopes to have the draft final released the first week in January 2007 and adoption in April 2007. The AQMP is available at the AQMD and TCWG

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**October 24, 2006
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websites and libraries. The AQMD is trying to put a presentation on the AQMP for next months TCWG agenda.

5.0 CHAIR'S REPORT

Jennifer Bergener thanked the individuals involved in putting together the workshop.

6.0 INFORMATION SHARING

Jean Mazur, FHWA, stated that there was a recent District of Columbia court decision that vacated a provision of the conformity rule regarding areas that have an emissions budget based on the 1-hour ozone standard. The decision says that if you have 1-hour ozone budgets, you must use them and cannot use the interim emissions test.

7.0 ADJOURNMENT

The Honorable Jennifer Bergener, adjourned the meeting at 11:00 a.m.

The next Transportation Conformity Working Group meeting will be held on Tuesday, November 28, 2006 at the SCAG office in downtown Los Angeles.

4.1 RTIP UPDATE



Riverside County Regional Complex
4080 Lemon Street, 3rd Floor • Riverside, California
Mailing Address: Post Office Box 12008 • Riverside, California 92502-2208
Phone (951) 787-7141 • Fax (951) 787-7920 • www.rctc.org

November 14, 2006

Jonathan Nadler
Planning and Policy Department
Environmental Planning Division
Southern California Association of Governments
818 West Seventh Street, 12th Floor
Los Angeles, California 90017

Re: November 28, 2006 TCWG RIV041052 Scope Change/Conformity Review Discussion
Agenda Item Addition Request

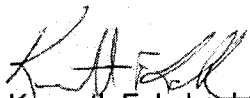
As part of Amendment 02 to the 2006 Regional Transportation Improvement Program (RTIP), RCTC has included a scope change on behalf of Moreno Valley's Nason St & Moreno Beach Drive ICs improvement project programmed in RIV041052. The scope change involves changing the Nason St IC through-lanes capacity from the current programmed and modeled (#357) level of 2 to 6 lanes to be 2 to 4 lanes.

As part of the required conformity review for Amendment 02, RCTC is requesting a discussion of the project at the November 28, 2006 Transportation Conformity Working Group (TCWG) to help determine if a "down-scoping" change to a modeled project is allowable through a formal amendment. The request originates from a previous discussion that has occurred among SCAG, SanBAG, Caltrans, and FHWA concerning a similar proposed project down-scoping change in San Bernardino County.

The Nason St IC change results from a corresponding land-use change and City General Plan amendment that reflects a traffic demand for the arterial now warranting widening only from 2 to 4 lanes. As currently programmed in the 2006 RTIP, the project description will be inconsistent with the developing environmental document and could impact the project schedule if not corrected through Amendment 02.

Please direct any questions concerning this request to Ken Lobeck, at 951.787-7141 or via email at klobeck@rctc.org.

Thank you,


Kenneth F. Lobeck
Staff Analyst

Attachments:

1. Moreno Valley Memo to SCAG for TCWG discussion
2. RIV041052 – Nason St- Moreno Beach Dr ICs Attachments

MEMORANDUM

TO: JONATHAN NADLER, SCAG / TCWG

**FROM: MARGERY LAZARUS, CITY OF MORENO VALLEY
& DAVID SPEIRS, PARSONS**

DATE: 11-13-2006

**SUBJECT: PROPOSED AMENDMENT TO RTIP DESCRIPTION FOR
RTIP ID# RIV041052, TO AMEND PROJECT DESCRIPTION**

BACKGROUND:

The City of Moreno Valley (City) proposes to make operational improvements at the State Route 60 (SR-60)/Moreno Beach Drive Interchange and the Nason Street Overcrossing (project). The purpose of this memorandum is to present a request to the TCWG to review the proposal by the City to amend the scope of the project (and the RTIP project description) by "down-scoping" the proposed number of lanes on Nason Street Overcrossing from the previously proposed configuration of "2 to 6 Lanes" to "2 to 4 Lanes".

The project description currently listed in the Adopted 2004 RTIP is as follows:

*SRS60/NASON ST IC + MORENO BEACH DR IC: WIDEN NASON OC 2 TO 6 LNS;
MODIFY MORENO BEACH DR IC - WIDEN 2 TO 6 LNS, REALIGN/WIDEN RAMPS,
ADD WB ON RAMP, ADD EB/WB AUX LN*

The proposed, amended project description is as follows (changes noted in Bold)

*SRS60/NASON ST IC + MORENO BEACH DR IC: **WIDEN NASON OC 2 TO 4 LNS;**
MODIFY MORENO BEACH DR IC - WIDEN 2 TO 6 LNS, REALIGN/WIDEN RAMPS,
ADD WB ON RAMP, ADD EB/WB AUX LN*

The reason for the proposed change in the project description is that the City completed General Plan revisions during 2006 and based upon the new adopted General Plan, the proposed ultimate configuration for Nason Street has been "down scoped" from a 6-lane arterial to a 4-lane arterial.

The project location and the limits of the proposed change along Nason Street are shown on the attached figures.

JUSTIFICATION FOR THE PROPOSED CHANGE:

- When the Nason Street project (see attached figure) commenced, the City's Circulation Element identified Nason Street as a six-lane facility, based on traffic forecasts performed in the late 1980's.
- The City's new General Plan (adopted in July 2006) adjusted land-use assumptions in the eastern portion of the city. The former General Plan assumed

more commercial and other high-density development than is now considered economically feasible, and the new land-use element addresses this issue by planning for lower-density development in that area.

- As a result of the change, forecast traffic levels on the east side of town decreased. Specifically, the current build-out traffic forecast for Nason Street over SR-60 is 18,400 vehicles per day.
- The City's ADT threshold for requiring a six-lane cross section is 30,000 vehicles per day at level of service C and 33,750 vehicles per day at level of service D. Therefore, it was determined that a four-lane cross section would be sufficient to serve the forecast traffic demand, and thus the decision to downgrade Nason Street to four lanes was made.

PROJECT DESCRIPTION (RTIP ID # RIV041052)

The City of Moreno Valley (City) proposes to make operational improvements at the State Route 60 (SR-60)/Moreno Beach Drive Interchange and the Nason Street Overcrossing (project). The project is needed to improve safety, to bring the roadway and bridge features up to current standards, and to provide acceptable levels of service on the freeway ramps and the ramp terminal intersections. The project proposes the following elements described below and shown the Project Vicinity Map.

1. ***Replacement of the existing Nason Street Overcrossing at SR-60, including widening of the approaches*** - The proposed project would replace the existing two-lane bridge with a new overcrossing that would provide four through lanes plus dedicated turn lanes with standard lane widths, shoulder widths, and sidewalks. In conjunction with the bridge widening, the roadway approaches to the bridge would also be widened, and a portion of the eastbound off-ramp and eastbound on-ramp would be re-graded to match the revised profile at Nason Street. Standard vertical clearance over SR-60 would be provided for the proposed bridge structure.
2. ***Additions of auxiliary lanes along SR-60*** - The proposed project would provide auxiliary lanes between the Nason Street ramps and the Moreno Beach Drive ramps.
3. ***Improvements at the intersection of Moreno Beach Drive and Eucalyptus Avenue*** - The proposed project would relocate the existing (EB) ramps intersection northerly to a proposed "diamond ramp configuration" and would reconstruct the west leg of the existing Eucalyptus Avenue/Moreno Beach Drive intersection.
4. ***Offsite drainage improvements along Ironwood Avenue (Line K-1)*** - The proposed drainage system along Ironwood Avenue (Line K-1) would divert a portion of the storm drain flows from the existing system at Moreno Beach Drive to the "Nason Basin" located in the northeast corner of the SR-60/Nason Street interchange. This improvement is in accordance with the 1992 master plan of drainage and was concurred with by the City and Caltrans.
5. ***Reconfiguration and reconstruction of ramps at the SR-60/Moreno Beach Drive interchange*** - South of SR-60, the existing nonstandard on- and off-ramps

would be replaced with a proposed diamond configuration for the EB ramps. A traffic signal would be provided at the intersection of these ramps. North of SR-60 a WB off-ramp to Moreno Beach Drive is proposed as well as a loop on-ramp for southbound traffic on Moreno Beach Drive to WB SR-60 on-ramp. A traffic signal would be provided at the intersection of these ramps. Ramp meters would be provided for both the EB and WB on-ramps. Also a direct on-ramp for southbound Moreno Beach Drive traffic to the WB SR-60 is provided.

6. ***Replacement of the existing Moreno Beach Drive Overcrossing at SR-60-***
The existing two-lane bridge would be replaced with a new overcrossing that would provide six through lanes plus dedicated turn lanes with standard lane and shoulder widths and sidewalks. Standard vertical clearance over SR-60 would be provided for the proposed bridge structure.

TRAFFIC FORECASTS (RTIP ID # RIV041052)

(Excerpt from August 15, 2006 Traffic Study by Parsons)

The forecast year for this project is 2035. Traffic forecasts for that year for the Build and No Build conditions were developed by the firm of Urban Crossroads, Inc. and approved for use by Caltrans at a meeting of the Project Development Team on December 8, 2005. The forecasts are fully documented in a letter from Urban Crossroads to Mr. Craig Neustaedter, the City's traffic engineer, dated January 10, 2006. That letter (hereafter "Urban Crossroads Forecasts") is presented in Appendix 3. In summary, the forecasts were developed using the Moreno Valley Traffic Model (MVTM), which is validated to 1997 conditions.

The MVTM forecast year reflects buildout of the City's General Plan. Buildout in the study area is not expected until after 2035. For the Nason Street corridor 90% of growth to buildout was assumed for the year 2035. For the Moreno Beach Drive corridor, 80% was assumed. The forecast method used a growth increment approach in which the difference between the future year model and existing year model volumes is added to the existing year ground count to provide the future year forecast. A similar procedure was used to forecast peak hour intersection turning movement volumes.

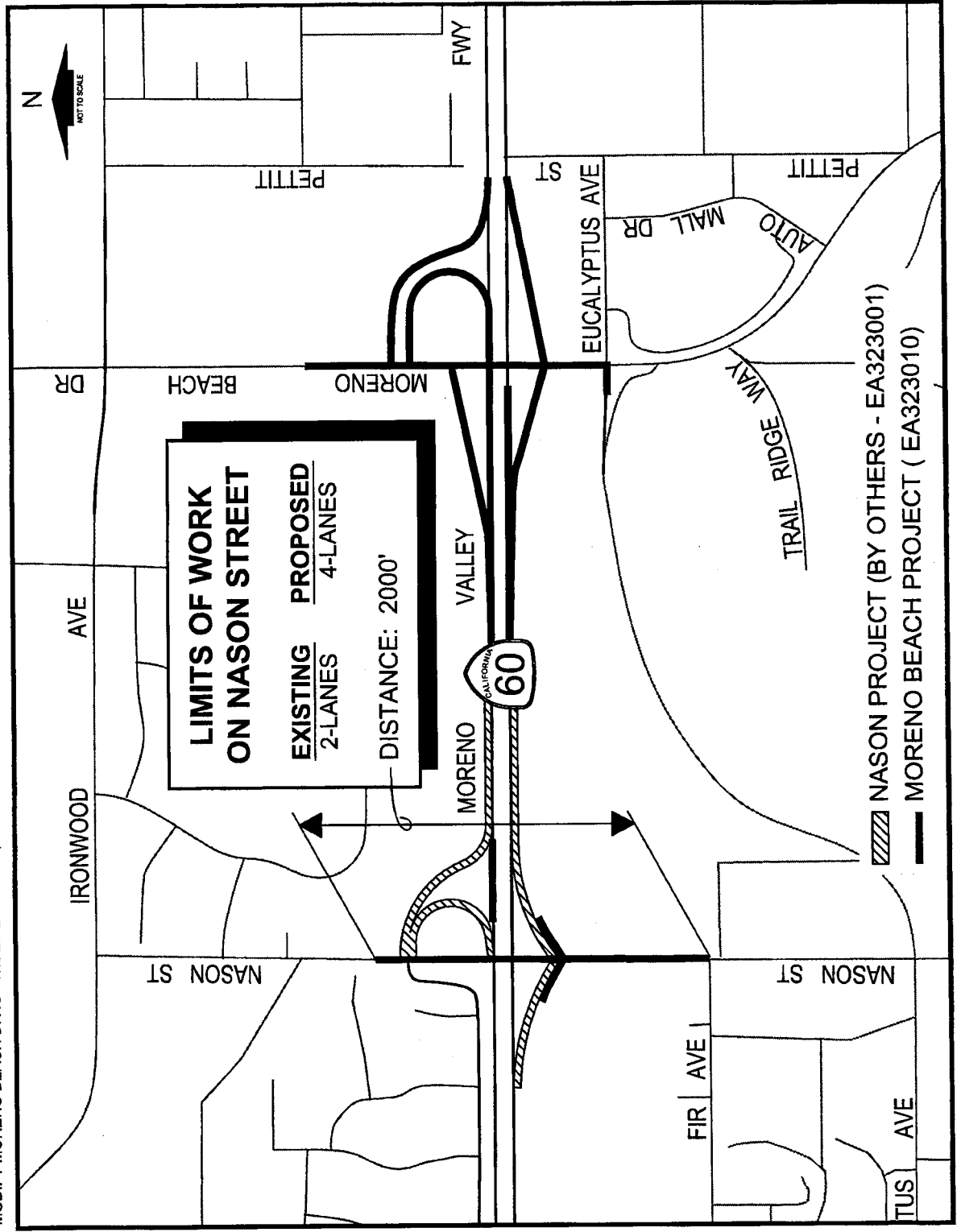
This traffic study used the Urban Crossroads Forecasts for analysis at both the Moreno Beach Drive and Nason Street interchanges. The use of those forecasts at the Nason Street interchange, rather than the forecasts previously prepared for the Nason project, is based on changed land use assumptions, different forecast years, and other information summarized in a letter from Craig Neustaedter to Neal Denno of Parsons dated February 21, 2006 and presented in Appendix 3.

All of the Urban Crossroads Forecasts were reviewed for reasonableness and accuracy. Some limited refinements were made to maintain conservation of flow.

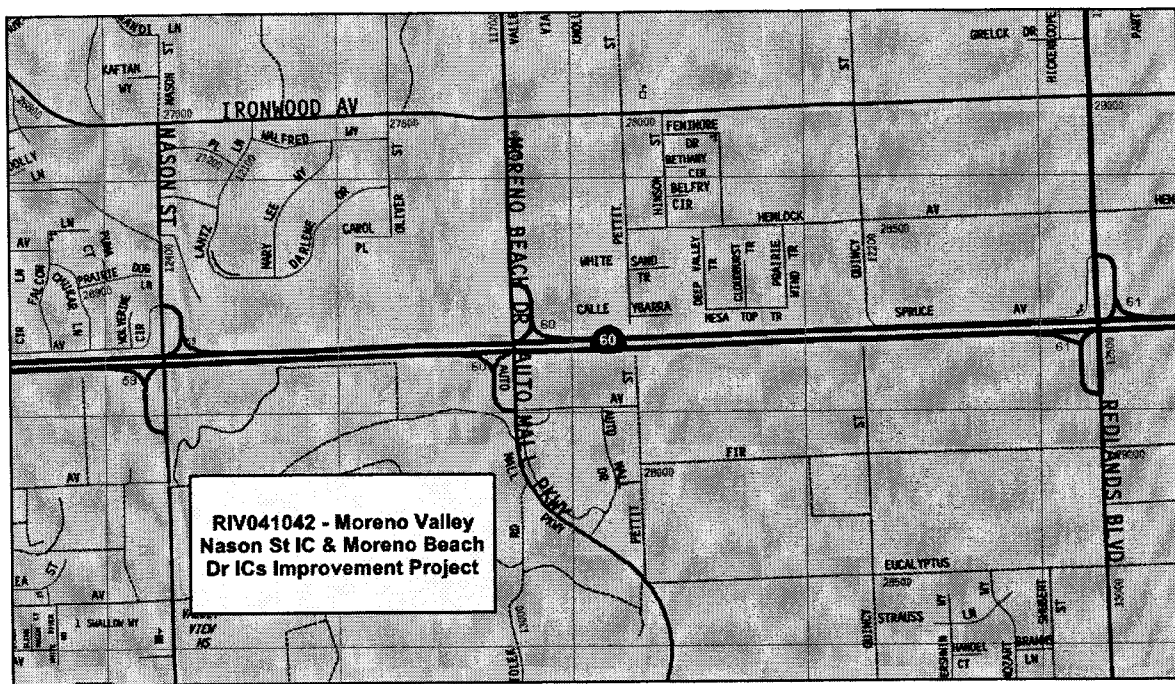
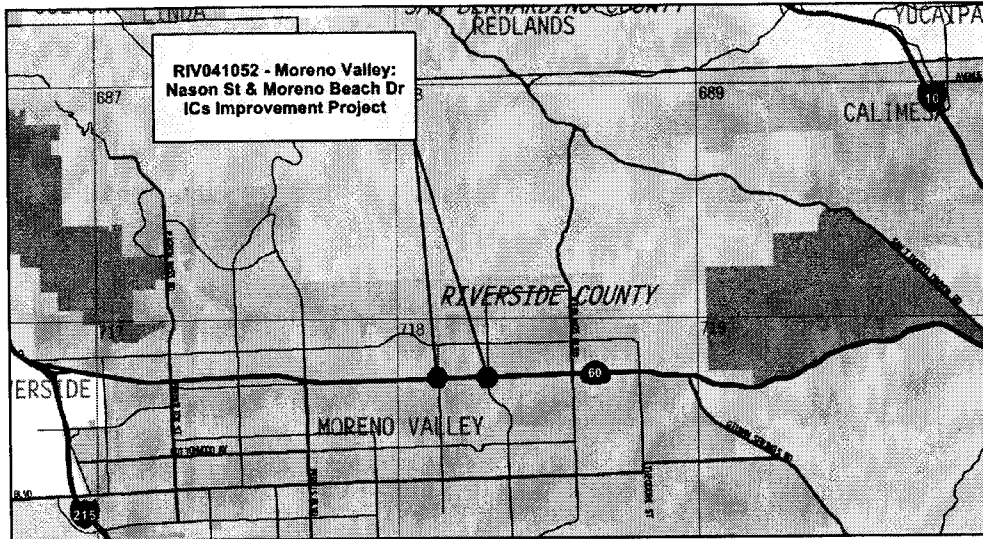
RIV-60 MORENO BEACH DRIVE **RTIP ID #RIV041052** **CALTRANS EA 323010**

PROPOSED AMENDED RTIP PROJECT DESCRIPTION:

SRS60/NASON ST IC + MORENO BEACH DR IC: WIDEN NASON OC 2 TO 4 LNS
 MODIFY MORENO BEACH DR IC - WIDEN 2 TO 6 LNS, REALIGN/WIDEN RAMP, ADD WB ON RAMP, ADD EBWB AUX LN (EA: 323010)



RIV041052
Lead Agency: Moreno Valley
SR60/Nason St and Moreno Beach Dr ICs Improvement Project
Project Location Map



SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

2006 Federal TIP (FY 2006/2007 - 2011/2012)

Print Date: 1/23/2007

Final County Tip

SORT: BY SOURCE

Project ID RIV041052

PROJECT REPORT

Local State Transit
County: All

System S		Lead Agency MORENO VALLEY					
Route	60	Source/FTIP 06FTIP		Amend # 0			
Post Mile	17.90	Env. Doc. CE		Basin SCAB			
	to 19.80	TCM N		Model #			
Element	2	County RIVERSIDE		Change Reason FUND CHG			
Program	CAXT3	Description:		Completion Date 03/30/11			
Yr Added	2004	SR60/NASON ST IC + MORENO BEACH DR IC: WIDEN NASON OC 2 TO 6 LNS; MODIFY MORENO BEACH DR IC - WIDEN 2 TO 6 LNS, REALIGN/WIDEN RAMPS, ADD WB ON RAMP, ADD EB/WB AUX LN (EA: 32301K)					
LOCAL		Fund Name	YEAR	Eng. Cost	R/W Cost	Cons. Cost	Fund Total
		WRVTUMF	2004/2005	\$1,500			\$1,500
		WRVTUMF	2005/2006		3,500		\$3,500
		WRVTUMF	2006/2007			22,256	\$22,256
							Subtotal
				\$1,500	\$3,500	\$22,256	\$27,256
				Total Cost:		\$27,256	
		(Funds are in thousands of dollars)					
Comments:		2006 Update: R/W Cons phases added w/ TUMF. Nason OC phase follow-on to 32300.					

Comments:

2006 Update: R/W Cons phases added w/ TUMF. Nason OC phase follow-on to 32300.

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

2006 Federal TIP (FY 2006/2007 - 2011/2012)

Print Date: 11/2/200

County Proposed Amendments

SORT: BY SOURCE

Project ID RIV041052

PROJECT REPORT

All State
County: All

System S		Lead Agency MORENO VALLEY				Amend # 2
Route	60	Source/FTIP 06FTIP		Env. Doc. CE		Basin SCAB
Post Mile	17.90			12/01/06		
to 19.80		TCM N				Model # R357
Element	2	County RIVERSIDE		Change Reason		SCOPE CHG
Program	CAXT3	Description:		Completion Date		03/30/11
Yr Added	2004	SR60/NASON ST IC + MORENO BEACH DR IC: WIDEN NASON OC 2 TO 4 LNS; MODIFY MORENO BEACH DR IC - WIDEN 2 TO 6 LNS, REALIGN/WIDEN RAMPS, ADD WB ON RAMP, ADD EBWB AUX LN (EA: 323010)				
LOCAL						
Fund Name	YEAR	Eng. Cost	RW Cost	Cons. Cost	Fund Total	
WRVTUMF	2004/2005	\$400			\$400	
WRVTUMF	2005/2006	\$400			\$400	
WRVTUMF	2006/2007	\$1,200			\$1,200	
WRVTUMF	2007/2008	\$1,200	3,500		\$4,700	
WRVTUMF	2008/2009	\$600	5,500	7,000	\$13,100	
WRVTUMF	2009/2010			23,000	\$23,000	
WRVTUMF	2010/2011			12,000	\$12,000	
					Subtotal	
		\$3,800	\$9,000			\$54,800
				\$42,000		

LOCAL

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

2006 Federal TIP (FY 2006/2007 - 2011/2012)

County Proposed Amendments

SORT: BY SOURCE

Project ID RIV041052

Print Date: 11/2/200

PROJECT REPORT

All State
County: All

(Funds are in thousands of dollars) **Total Cost:** **\$54,800**

Comments:

06 Amend 02 - Nov 06: Revised costs/TUMF adjustments. 2006 Update: R/W Cons phases added w/ TUMF. Nason OC phase follow-on to 32300.

4.3 REVIEW OF PM HOT SPOT INTERAGENCY REVIEW FORMS

RTIP ID# (required) ORA000195				
Project Description (clearly describe project) The Orange County Transportation Authority (OCTA) is proposing design modifications to the SR-22/West Orange County Connection (WOCC) Project at the eastern terminus of the project in the westbound direction to extend the HOV lane 750 meters (2,460 feet) further east and eliminate the auxiliary lane at the Tustin Avenue on-ramp and re-stripe the westbound Tustin Ave on-ramp to a standard ramp-merge configuration in the City of Orange, Orange County, California. The re-striping modifications to this location differ from the design that was evaluated in the approved Final Environmental Impact Statement/Report (FEIS/EIR). A description of the original project, which was evaluated in the FEIS/EIR (March 2003) and design plans, along with the proposed modifications evaluated in this Environmental Re-evaluation/Addendum are provided in this document. The restriping modifications to the project would not result in any additional permanent right-of-way acquisitions. The appropriate transportation agencies (i.e., Federal Highway Administration and Caltrans) have been involved with the proposed changes.				
Type of Project (use Table 1 on instruction sheet) Change to existing state highway – construct one HOV lane in each direction.				
County Orange	Narrative Location/Route & Postmiles SR-22 between I-405 and SR-55 12-ORA-22 KP/(PM) 1.1/21.2 (0.7/13.2) Caltrans Projects – EA# 071611			
Lead Agency: Caltrans and OCTA				
Contact Person Mary Toutouchi	Phone# (714) 712-1640	Fax# (714) 712-1582	Email MToutouchi@octa.net	
Hot Spot Pollutant of Concern (check one or both) PM2.5 X PM10 X				
Federal Action for which Project-Level PM Conformity is Needed (check appropriate box)				
Categorical Exclusion (NEPA)	EA or Draft EIS	FONSI or Final EIS	X PS&E or Construction	Other
Scheduled Date of Federal Action: October, 2006				
Current Programming Dates as appropriate				
	PE/Environmental	ENG	ROW	CON
Start	Prior RTIP	Prior RTIP	Prior RTIP	Prior RTIP
End	Complete	05-06	Prior RTIP	05/06
Project Purpose and Need (Summary): (attach additional sheets as necessary) The purpose of the design modification is to improve safety and traffic operations at the eastern terminus of SR-22 in the westbound direction, and were a result of a design safety review for operations and sight distance requirements. The purpose of the SR-22/WOCC project is to improve both existing and future mobility and enhance safety throughout the corridor. SR-22 represents a major link to other freeway systems within the Orange County area and is an important component of the county's transportation system. Under existing conditions, SR-22 does not meet the capacity needs of the area. With projected population and employment growth trends indicating increased transportation volumes, SR-22 can be expected to experience worsening operational deficiencies. There is insufficient capacity within the SR-22 corridor on the freeway and adjacent arterial streets to accommodate existing and projected travel demand between the SR-55 interchange and the Los Angeles County line at I-405 and I-605. Some portions of existing SR-22 do not conform to current state and federal highway design standards. Existing shoulder widths and vertical clearances, for example, are non-standard in some areas. Providing standard features where possible will improve safety on the freeway mainline and ramps.				

Surrounding Land Use/Traffic Generators *(especially effect on diesel traffic)*

Discussion of land uses/traffic generators will be focused on the City of Orange since the changes are all of the proposed changes are within their jurisdiction.

Since the early 1980s, mid-rise and high-rise office buildings and business parks in the City of Orange have been built on land formerly occupied by small-scale, low-intensity offices, shopping centers, and industrial developments. Dense subdivisions, condominiums, and apartment complexes have replaced the traditional medium-sized lot, single-family residential tract.

The primary land use in Orange along SR-22 is commercial, with some retail uses near the east end of SR-22. A transition is made from major retail to commercial high-rises near Main Street. Further east along SR-22, Old Town commercial and mixed-retail are the predominant land uses. Saint Joseph Hospital and the Children's Hospital of Orange County are large public facilities located north of SR-22 nestled between several high-rise buildings. East of Glassell Street to Tustin Avenue, the predominant land use is low-density residential. At Tustin Avenue, the land use changes to commercial as far east as SR-55, where there is low-density residential.

According to the planning department of the City of Orange there are no proposed land use changes in the affected area. There are, however, several proposed development plans currently under consideration by the City, which are associated with The Block at Orange and the surrounding area.

Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

SR-22/WOCC Project Opening Year 2007

Condition	Location	AADT ¹	LOS ²	% Trucks ³	Truck AADT
Build	Beach Blvd - Knott St	168,700	E	4.9%	8,270
	Harbor Blvd - Euclid St	226,600	E	4.7%	10,650
	I-5/SR-57 - The City Dr	242,200	E	4.5%	10,900
	Main St - I-5/SR-57	179,500	E	4.5%	8,080
	Tustin St - Glassell St	158,700	E	3.4%	5,400
No Build	Beach Blvd - Knott St	153,300	E	4.9%	7,510
	Harbor Blvd - Euclid St	200,300	F	4.7%	9,410
	I-5/SR-57 - The City Dr	219,100	F	4.5%	9,860
	Main St - I-5/SR-57	183,900	E	4.5%	8,280
	Tustin St - Glassell St	167,900	E	3.4%	5,710

1. Interpolated from existing (1996) and 2020 No Build in the FEIS/EIR Table 3.7-3 and 2020 Build in Project Report Attachment F
2. Peak hour worse direction based on interpolated volumes and v/c conversion to LOS based on FEIS/EIR Table 3.7-4
3. Caltrans 2004 truck counts

RTP Horizon Year / Design Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

SR-22/WOCC Project Design Year 2020

Condition	Location	AADT ¹	LOS ²	% Trucks ³	Truck AADT
Build	Beach Blvd - Knott St	177,600	F	4.9%	8,700
	Harbor Blvd - Euclid St	238,100	E	4.7%	11,190
	I-5/SR-57 - The City Dr	251,700	E	4.5%	11,330
	Main St - I-5/SR-57	184,900	E	4.5%	8,320
	Tustin St - Glassell St	162,000	E	3.4%	5,510
No Build	Beach Blvd - Knott St	158,100	E	4.9%	7,750
	Harbor Blvd - Euclid St	204,800	F	4.7%	9,630
	I-5/SR-57 - The City Dr	222,600	F	4.5%	10,020
	Main St - I-5/SR-57	190,500	F	4.5%	8,570
	Tustin St - Glassell St	173,600	E	3.4%	5,900

1. 2020 No Build from the FEIS/EIR Table 3.7-3 and 2020 Build from Project Report Attachment F
2. Peak hour worse direction from FEIS/EIR Table 4.7-6
3. Caltrans 2004 truck counts

Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT

Not Applicable

RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT

Not Applicable

Describe potential traffic redistribution effects of congestion relief (*impact on other facilities*)

The proposed restriping modifications are exclusively on the SR-22 freeway. There would be no potential for traffic redistribution effects of congestion relief because it has been determined that the proposed restriping modifications would improve traffic operations and the elimination of one auxiliary lane is warranted by the lack of traffic demand. Please refer to the discussion in the comment/explanation section for detailed analysis.

Comments/Explanation/Details (attach additional sheets as necessary)

The construction of the mainline HOV on SR-22 is underway and it is anticipated to be complete in early 2007. Caltrans and OCTA, the Agency responsible for implementation of the SR-22/WOCC project, will obtain FHWA concurrence on the Environmental Reevaluation for the restriping modifications as described below. This *PM Conformity Hot Spot Analysis Project Summary Form for the Interagency Consultation* solicits the concurrence of the Transportation Conformity Workgroup to determine that the proposed restriping modifications described below are not considered "Project of Air Quality Concern (POAQC)."

Restriping of the HOV lane at the eastern terminus of the SR-22/WOCC Project in the westbound direction and elimination of an auxiliary lane

Existing Conditions & Original Project Proposal

The existing westbound SR-22 freeway lane configuration beginning at approximately Tustin Ave overcrossing consist of one auxiliary lane from the westbound Tustin Ave on-ramp to the westbound Glassell/Grand off-ramp, and this segment currently consist of three mixed flow lanes. As the auxiliary lane terminates at the Glassell/Grand off-ramp, the three mixed flow lanes continue on the SR-22 mainline above the Glassell/Grand overcrossing.

The original project proposal for the SR-22/WOCC Project retained the auxiliary lane from the westbound Tustin Ave on-ramp to the westbound Glassell/Grand off-ramp, and it proposed to widen the three mixed flow lanes to four mixed flow lanes. The four mixed flow lanes would continue on the SR-22 mainline beyond the gore of the Glassell/Grand off-ramp (approximately mainline Station 203+00). At Station 203+00, one mixed flow lane (lane #4) was dropped and the HOV lane began (See Attached Original Project Layout Plans L38-41)

Proposed Design Modifications

As described above, the original project proposal would drop the fourth lane at approximately mainline Station 203+00 (See Original Project Layout Plans L38), and begin the HOV lane. After review by the Safety Review Committee, it was recommended the change in lane configuration be shifted (start the HOV lane to the east of this location) to eliminate potential safety-related incidents due to the geometrics and non-standard sight distance issues at this location.

After review of traffic volumes from the EIS/EIR, the auxiliary lane from the westbound Tustin Ave on-ramp to westbound Glassell/Grand off-ramp was determined not to be warranted. The combined traffic volumes from both the Tustin Ave on-ramp and the SR-55 freeway connectors to westbound SR-22 freeway are approximately 5,000+ with only 400+ vehicles exiting at the Glassell/Grand off-ramp.

Therefore, a proposal of the following restriping modifications are recommended:

1. Eliminate the auxiliary lane between Tustin Ave and Glassell/Grand on-and-off ramps and restripe the Westbound Tustin Ave on-ramp to a standard ramp-merge configuration and shift the four mixed flow lanes to the right in the westerly direction of the freeway.
2. Based on design standards for the ingress to an HOV lane, begin the HOV lane at approximately mainline Station 210+00 (See Attached Pavement Delineation Plans PD70-75). At this station there are still four mixed flow lanes and one HOV lane.
3. At mainline Station 208+00 (See Attached Pavement Delineation Plans PD70-75), the #4 lane becomes a dedicated off-ramp lane to Glassell/Grand and the #3 lane is an optional off-ramp lane. This results in three mixed flow lanes and one HOV lane continuing on the mainline over the Glassell/Grand OC, the same as the original proposal.

The following are conclusion of the proposed restriping modifications to the SR-22/WOCC Project at the eastern terminus:

1. There would be no change in the level of service or capacity enhancement from the approved EIS/EIR.
2. The HOV lane is proposed to be extended by approximately 750 m to the east (approximately mainline Station 210+00) of the original Project proposal, as approved in the EIR/EIR.
3. Traffic operations (e.g., sight distance) would be improved.
4. The Safety Review Committee concurred with this restriping modification.

Comments/Explanation/Details

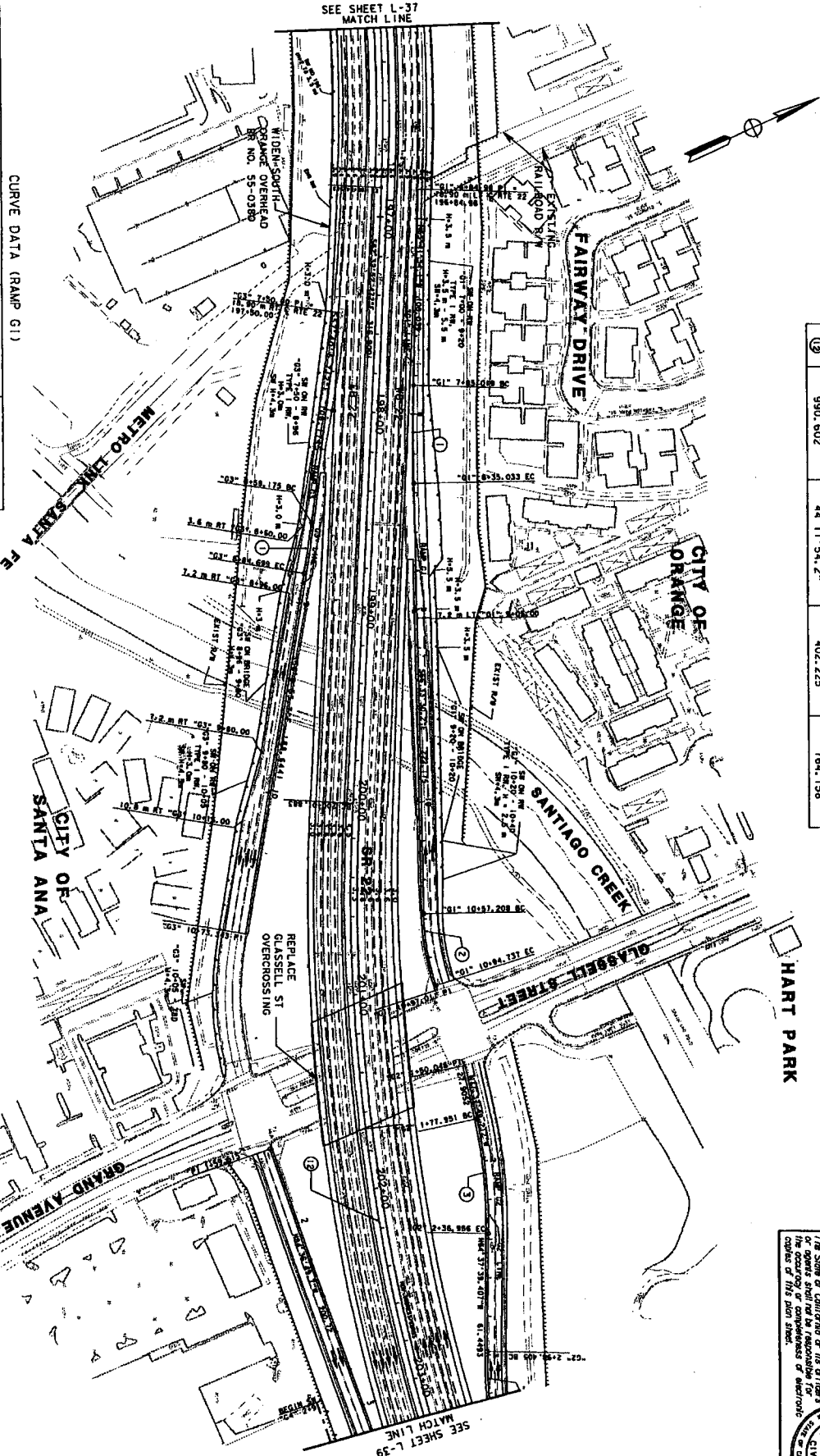
(continued)

Attach additional sheets as necessary; include narrative reason why POAQC or Not POAQC decision is appropriate

NOTE:
FOR COMPLETE RIGHT OF WAY DATA,
SEE RIGHT OF WAY RECORD MAPS
AT DISTRICT OFFICE.

CURVE DATA (C RTE 22)

NO	R	Δ	T	L
②	990.602	44°11'54.2"	402.225	764.158



CURVE DATA (RAMP G1)

NO	R	Δ	T	L
①	1000.000	2°51'56.1"	25.012	50.014
②	130.000	16°37'25.4"	18.896	37.529

CURVE DATA (RAMP G3)

NO	R	Δ	T	L
①	1000.000	1°31'10.900"	13.263	26.524

ALL DIMENSIONS ARE IN METERS
UNLESS OTHERWISE SHOWN

LAYOUT

Scale 1:1000

L-38



POST COUNTY	ROUTE	KILOMETER POST MILE TOTAL	SHEET TOTAL
12	0-0	605,405.33	51
		1,171.2	63

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

THE SIGNATURE OF THE OFFICER OF THE DISTRICT OF CALIFORNIA IS REQUIRED FOR THE RECORD OF THIS PLAN SHEET.

NOTE: FOR COMPLETE RIGHT OF WAY DATA.
SEE RIGHT OF WAY RECORD MAPS
AT DISTRICT OFFICE.

No	R	Δ	T	L
①	966.102	4° 52' 2.0"	41.144	82.239
②	260.000	12° 58' 58.8"	29.584	58.915
③	260.000	13° 00' 09.6"	29.629	59.004

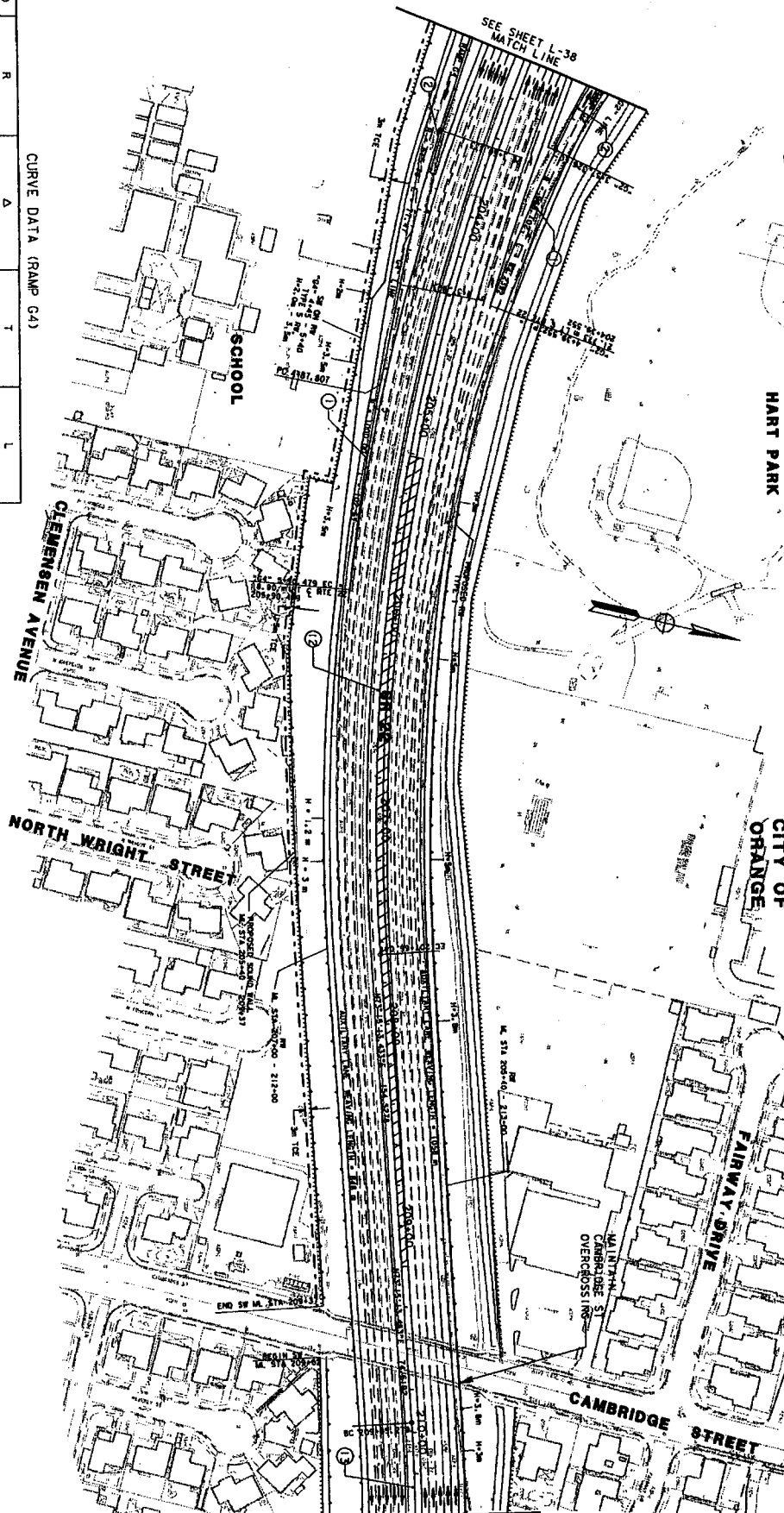
CURVE DATA (MAY LINE)				
NO	R	Δ	T	L
⑫	990.502	44° 11' 54.2"	402.225	764.158
⑬	914.396	14° 36' 35.5"	117.226	233.80

NO	R	Δ	T	L
①	1000.000	5° 52' 57.7"	51.381	102.672
②	615.780	7° 12' 30.0"	38.787	71.471

ALL DIMENSIONS ARE IN METERS
UNLESS OTHERWISE SHOWN

LAYOUT
Scale 1:1000

7-39



SEE SHEET L-40
MATCH LINE

LAST REVISION DATE PLOTTED 21 FEB 2003

NOTE:
FOR COMPLETE RIGHT OF WAY DATA,
SEE RIGHT OF WAY RECORD MAPS
AT DISTRICT OFFICE.

CURVE DATA (RAMP T1)				
NO	R	Δ	T	L
①	1000.000	2°38'4.8"	22.996	45.984
②	484.380	11°51'36.6"	50.313	100.266

CITY OF
ORANGE

CURVE DATA (RAMP T2)				
NO	R	Δ	T	L
③	974.396	14°26'26.5"	17.226	233.180

NORTH RIDGEWOOD STREET

EAST KEMPER AVENUE

CITY OF
SANTA ANA

GREENVIEW DRIVE

FAIRWAY DRIVE

CURVE DATA (RAMP T2)				
NO	R	Δ	T	L
①	400.000	18°23'22.6"	64.749	128.384

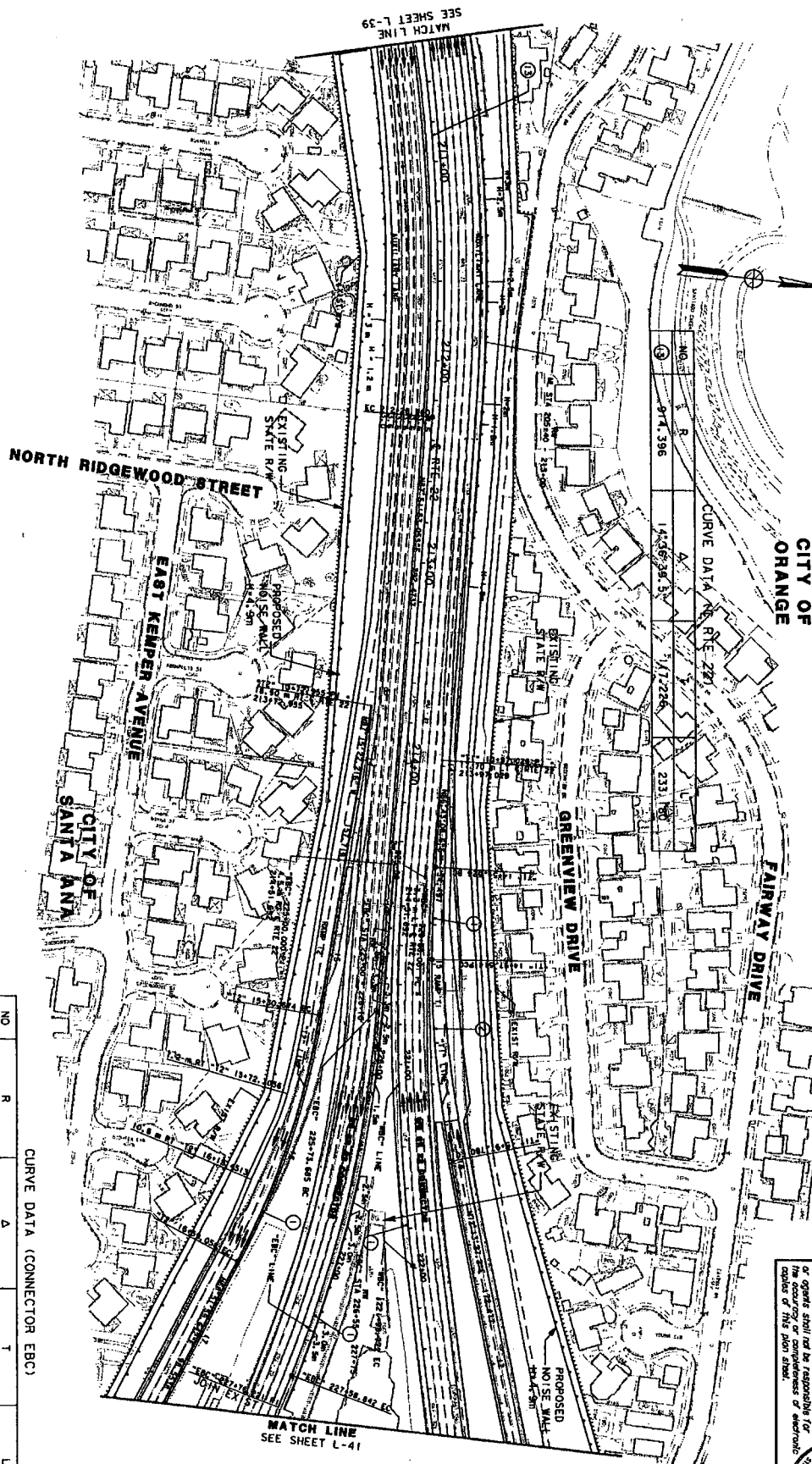
CURVE DATA (CONNECTOR WBC)				
NO	R	Δ	T	L
①	1000.000	11°23'19.7"	99.715	198.772

CURVE DATA (CONNECTOR EBC)				
NO	R	Δ	T	L
①	613.200	17°18'2.5"	93.289	185.158

ALL DIMENSIONS ARE IN METERS
UNLESS OTHERWISE SHOWN

LAYOUT
Scale 1:1000

L-40



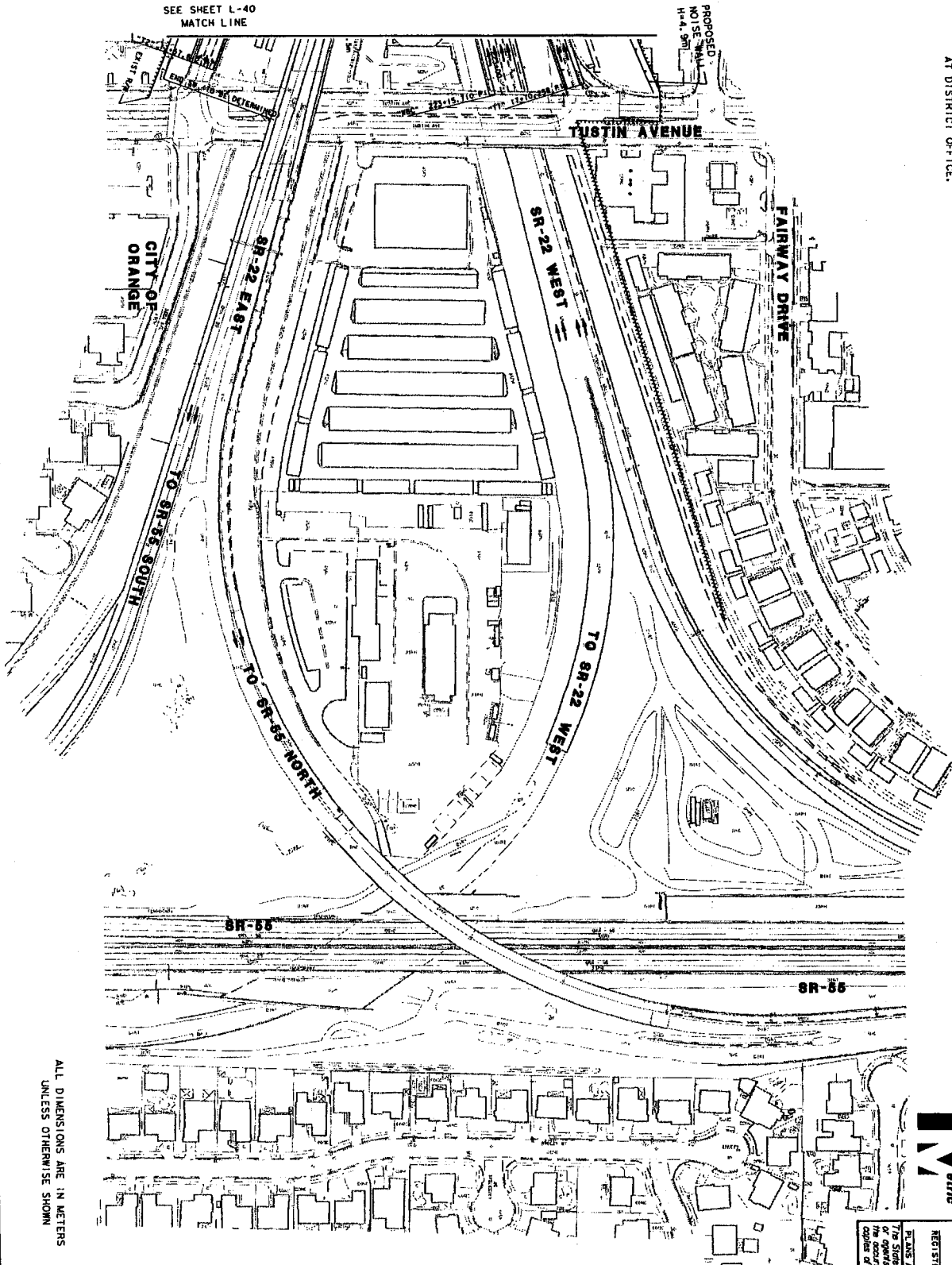
DIST	COUNTY	ROUTE	KILOMETER POST SHEET TOTAL
12	Or	605.405	0+0.16
22		33.175.6	1+23.9
			53
			63

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

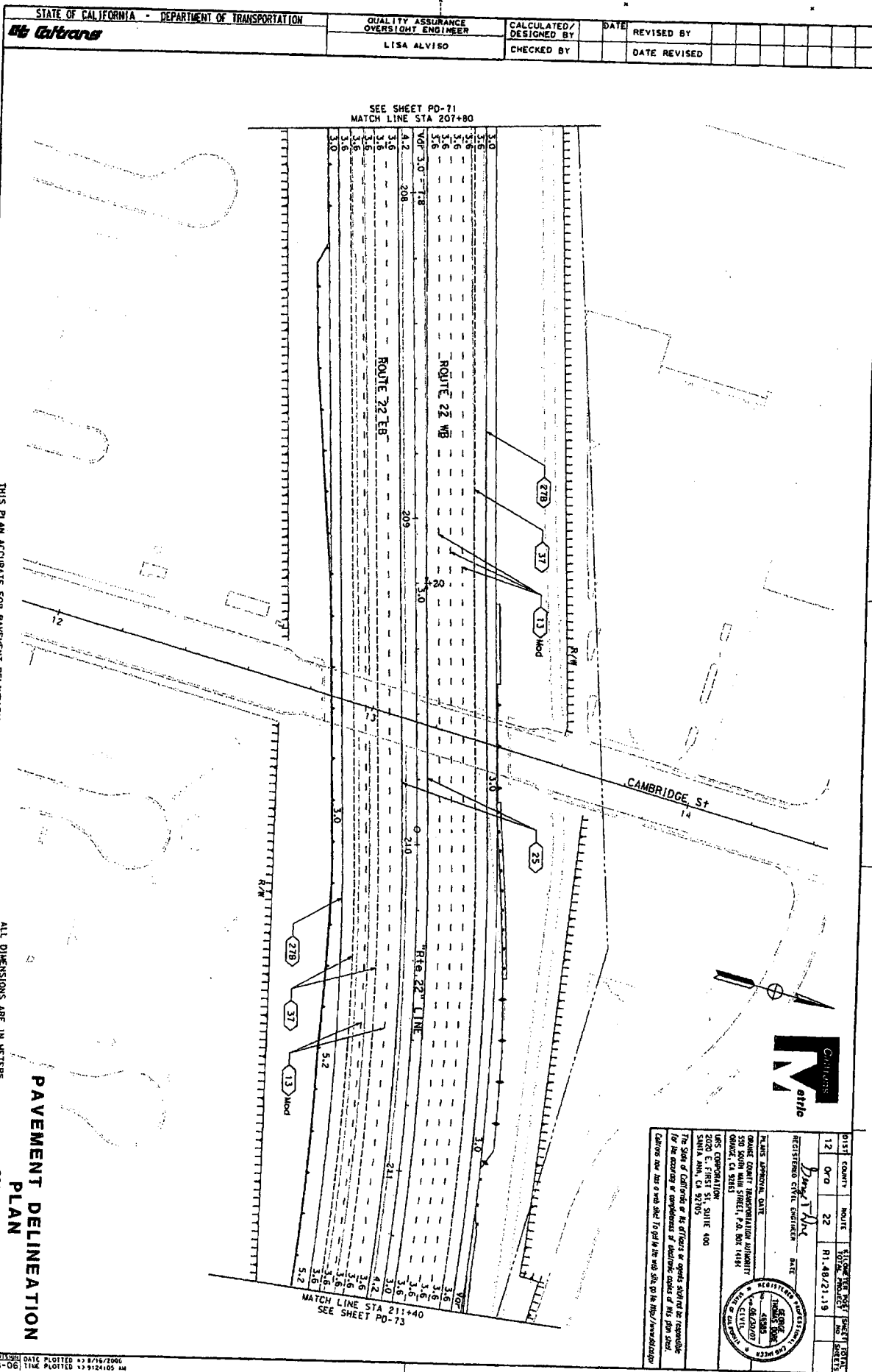
NOTE: FOR COMPLETE RIGHT OF WAY DATA,
SEE RIGHT OF WAY RECORD MAPS
AT DISTRICT OFFICE.



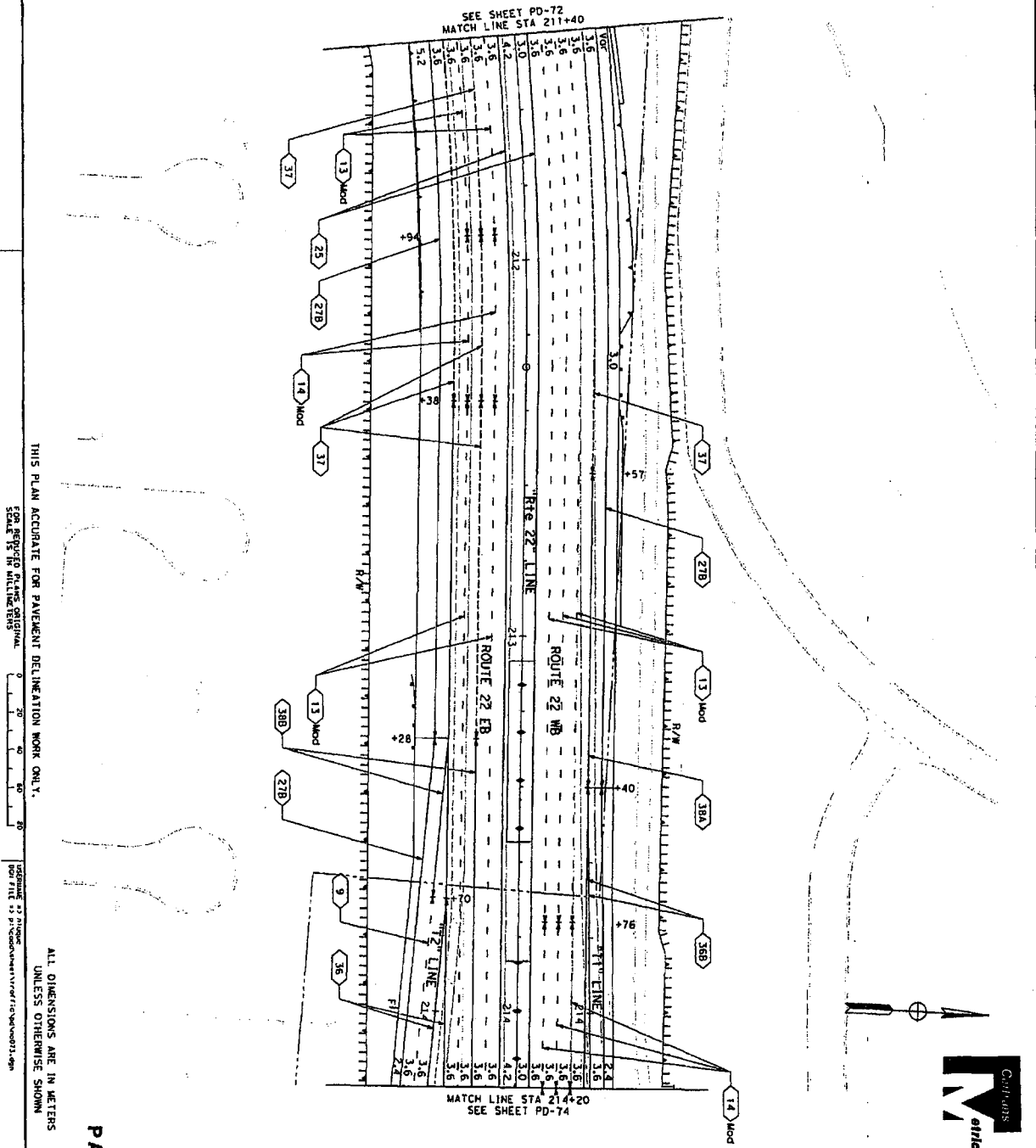
ALL DIMENSIONS ARE IN METERS
UNLESS OTHERWISE SHOWN

LAYOUT
Scale 1:1000
L-41

LAST REVISION: DATE PLOTTED: 21 FEB 2003



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION		QUALITY ASSURANCE OVERSIGHT ENGINEER	CALCULATED/ DESIGNED BY	DATE	REVISED BY
Caltrans		LISA ALVISO	CHECKED BY		DATE REVISED



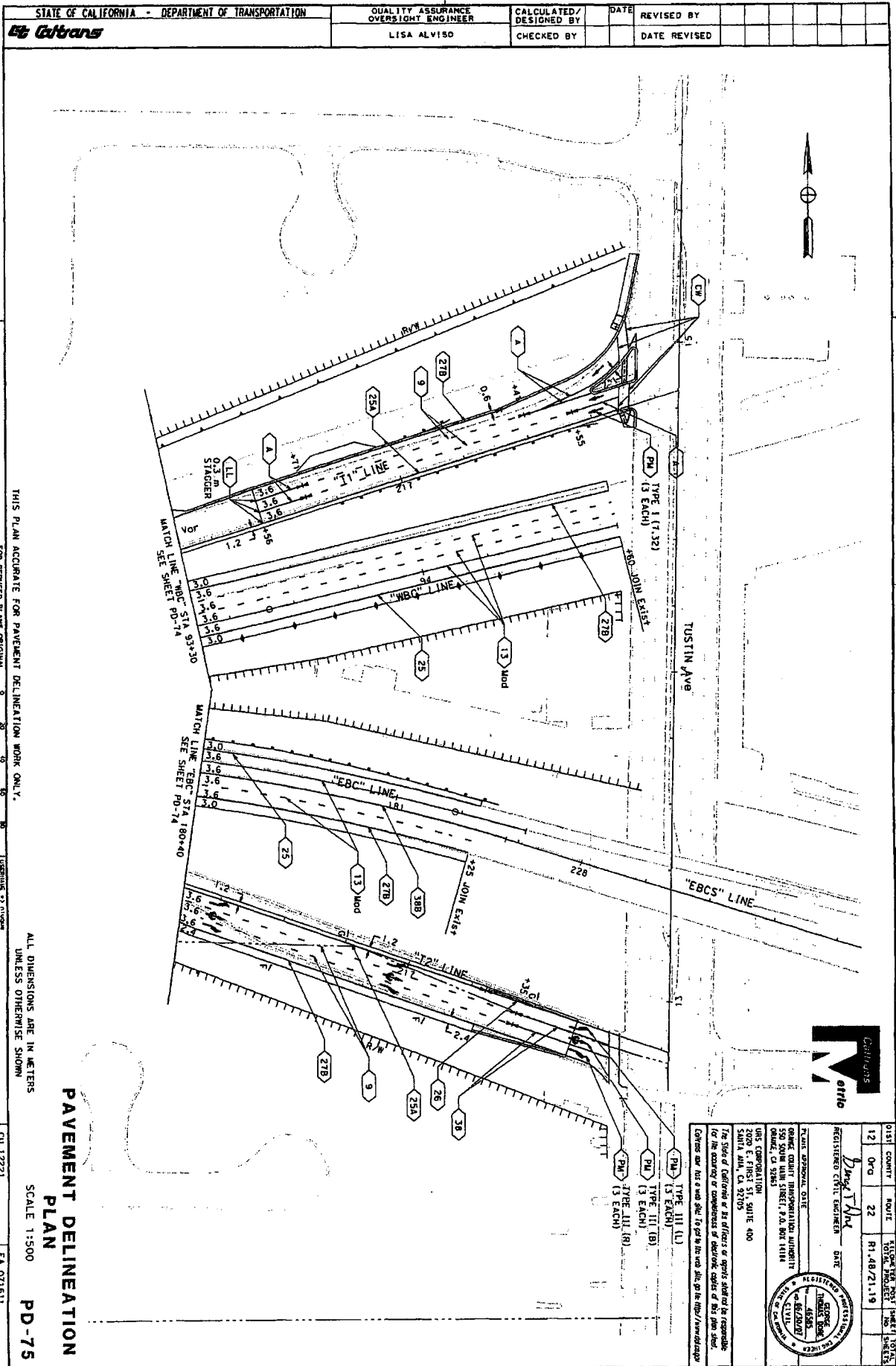
THIS PLAN ACCURATE FOR PAVEMENT DELINEATION WORK ONLY.
FOR REDUCED PLANS ORIGINAL
SCALE IS IN MILLIMETERS

ALL DIMENSIONS ARE IN METERS
UNLESS OTHERWISE SHOWN

PAVEMENT DELINEATION
PLAN
SCALE 1:500
PD-73

CU 12221 EA 071611

DIST	COUNTY	ROUTE	PROJECT NO.	SHEET NO.
12	Oro	22	R148/21.19	12
REGISTERED CIVIL ENGINEER David T. Hux DATE 08/20/2010				
LICENSE NO. 48394 EXPIRATION DATE 08/20/2010 OFFICE: 2000 E. FIRST ST., SUITE 400 SANTA ANA, CA 92705				
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.				



PM Conformity Hot Spot Analysis – Project Summary for Interagency Consultation

RTIP ID# <i>(required)</i> RIV000103				
Project Description: The California Department of Transportation and the Federal Highway Administration, in coordination with the City of Palm Springs and the Agua Caliente Band of Cahuilla Indians, propose to widen and improve Belardo Road from just west of South Palm Canyon Drive to a point just north of Sunny Dunes Road, including the construction of a two-lane bridge to carry Belardo Road over Tahquitz Creek and construction of new roadways to connect noncontiguous sections of Belardo Road, and to provide additional access to the Tribal Interpretive Center parking lot in the City of Palm Springs, Riverside County, California. In addition, the existing portions of Belardo Road from just west of South Palm Canyon Drive to just north of Sunny Dunes Road would be widened as necessary to create a uniform width roadway.				
Type of Project <i>(use Table 1 on instruction sheet)</i> The proposed project does not fit into any of the "Table 1" categories. The project would consist of 1) adding a new bridge structure, and 2) minor changes to an existing local street.				
County Riverside	Narrative Location/Route & Postmiles: Project is located along Belardo Road, from just north of Sunny Dunes Road to just west of South Palm Canyon Drive, in the City of Palm Springs in eastern Riverside County. 08-RIV-0-PSP Caltrans Projects – EA# PLHL 5282 (020)			
Lead Agency: Caltrans, FHWA, and City of Palm Springs				
Contact Person Alicia Colburn	Phone# (909) 383-6909	Fax# (909) 383-4129	Email alicia_colburn @dot.ca.gov	
Hot Spot Pollutant of Concern <i>(check one or both)</i> PM2.5 PM10 <input checked="" type="checkbox"/>				
Federal Action for which Project-Level PM Conformity is Needed <i>(check appropriate box)</i>				
Categorical Exclusion (NEPA)	<input checked="" type="checkbox"/> EA or Draft EIS	FONSI or Final EIS	PS&E or Construction	Other
Scheduled Date of Federal Action:				
Current Programming Dates <i>as appropriate</i>				
	PE/Environmental	ENG	ROW	CON
Start	2006	2007	2007	2007
End	2007	2007	2007	2008
Project Purpose and Need (Summary): <i>(attach additional sheets as necessary)</i> <div style="text-align: center; padding: 20px;"> See attached Purpose and Need statement. </div>				

Surrounding Land Use/Traffic Generators (especially effect on diesel traffic): Land uses adjacent to the project alignment include: single family residences, vacant land, and a motel at the northern end of the project site near Sunny Dunes Road; Tahquitz Creek, a pedestrian/equestrian trail along Tahquitz Creek, and vacant land between Sunny Dunes Road and Mesquite Avenue; commercial, vacant land, mobile home parks between Mesquite Avenue and Morongo Road; and single family residences, hotel/motels, and vacant land between Morongo Road and South Palm Canyon Drive, near the southern end of Belardo Road.

Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

	LOS	AADT	Truck Only AADT	Truck Percentage
No Build	--	--	--	--
Build	B	2,800	56	2%

RTP Horizon Year / Design Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

	LOS	AADT	Truck Only AADT	Truck Percentage
No Build	--	--	--	--
Build	B	4,600	92	2%

Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT

N/A – Facility is not an interchange or intersection.

RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT

N/A – Facility is not an interchange or intersection.

Describe potential traffic redistribution effects of congestion relief (impact on other facilities)

The change in local circulation patterns that would be created by new access/egress opportunities and localized diversion would not be expected to degrade operations on area roadways. In addition, the traffic served by the bridge extension would be expected to be generally local in nature, but the project would still provide new and improved connectivity between downtown Palm Springs and the Tribal Interpretative Center, a specifically identified project purpose. The project will also provide more direct access to undeveloped areas in the project vicinity, improve local access and provide an alternative route for emergency vehicles to the South Palm Canyon Drive at the Tahquitz Channel.

Comments/Explanation/Details (attach additional sheets as necessary)

None.

RTIP#: RIV000103

PROJECT PURPOSE AND NEED SUMMARY

1.1 PROJECT PURPOSE

The purpose of the proposed Belardo Road Bridge and Roadway Project, as originally stated in the project purpose and benefit statement in the Public Lands Highways Discretionary Program application is:

- to provide regional roadway access to the Tribal Interpretive Center and Tahquitz Creek Scenic Park, and
- to generate economic development of the surrounding Tribal lands.

The following section explains the existing deficiencies that result in this project purpose.

1.2 PROJECT NEED

Belardo Road is a non-continuous roadway between Tahquitz Canyon Way and South Palm Canyon Drive. Because there is no bridge over Tahquitz Creek, no roadway between Sunny Dunes Road and Mesquite Avenue, and there are missing improvements between Mesquite Avenue and Morongo Avenue, Belardo Road does not function as the Secondary Roadway designated in the City of Palm Springs General Plan. This restricts access to and development of lands along Belardo Road.

1.2.1 ACCESS

The Tahquitz Canyon Historic Area is located on Tribal lands in the southwest portion of Palm Springs and includes the Tahquitz Creek Scenic Area. The Tribal Interpretive Center, located in the Tahquitz Creek Scenic Area, is a visitors center for Tahquitz Canyon that is operated by the Tribe, and has facilities for picnicking, hiking, and horseback riding. Currently, the Tribal Interpretive Center at Tahquitz Creek has one access road, which is at the western end of Mesquite Avenue, requiring visitors to use South Palm Canyon Drive and Mesquite Avenue to access the Tribal Interpretive Center. A second access point is necessary.

1.2.2 SAFETY AND EMERGENCY RESPONSE

The gap in Belardo Road forces all traffic traveling on Belardo Road to divert to South Palm Canyon Drive between Sunny Dunes Road and either Mesquite Avenue or Morongo Road (depending on origin/destination). The majority of this traffic must turn at South Palm Canyon Drive. High-turning movements often result in high accident rates. The South Palm Canyon Drive/Mesquite Avenue intersection has the City's 10th-highest accident rate, with an average of five accidents per year and 0.052 accidents per million vehicles.

The gap in Belardo Road and the single access point to the Tribal Interpretive Center mean that emergency response to the adjoining lands and, especially to the Tribal

Interpretive Center, is less direct. The existing single access road would compromise emergency response if an accident or natural disaster were to block Mesquite Avenue or the entrance road at its west end. In addition, access to the area west of South Palm Canyon Drive could be difficult if an accident or natural disaster were to affect the South Palm Canyon Drive bridge over Tahquitz Creek.

1.2.3 CONSTRAINTS ON ECONOMIC DEVELOPMENT

The current gap in Belardo Road impedes the free movement of tourists and visitors between some of these attractions, especially the local hotels and the Tribal Interpretive Center. This gap forces traffic onto South Palm Canyon Drive, isolating the area to the southwest from the downtown area. There are very visible physical and economic differences between the two areas. Downtown Palm Springs received over \$40 million in private investments between 1996 and 2001, while the South Palm Canyon area gained only one new building and some minor building rehabilitation during the same period. Improving the Belardo Road gap could benefit economic development of the South Palm Canyon area.

RTIP ID# (required) LA996415				
Project Description (clearly describe project) Upper 2nd Street Extension (Upper Grand Avenue to Olive Street): The City of Los Angeles, in cooperation with Caltrans and the Federal Highway Administration (FHWA), proposes a traffic improvement project located at Upper 2 nd Street from Upper Grand Avenue to Olive Street. The new roadway, 325-feet in length within an 80-foot-right-of-way, will connect Upper 2 nd Street from Upper Grand Avenue at the top of Bunker Hill to Olive Street and will be partially at-grade and partially a bridge structure. The design speed for the roadway is 20 mph. The roadway will include two travel lanes in each direction with left-turn pockets at the intersection approaches and 12-foot sidewalks on both sides of the street. The two existing signals at the intersections at both ends of the proposed roadway will be modified. The 2 nd Street segment east of Olive Street is currently and will remain a one-way secondary access road from Hill Street west to Olive Street. Construction work includes demolition and removal of existing retaining walls and surface parking lot, site grading, excavation for roadway footings, construction of abutments and stem walls, placement of pre-cast girders, placement of form and steel work for the roadway deck, pouring of concrete deck, approach work at the east end of the roadway, bridge joint work, and construction of a bridge expansion joint connection. All work will occur within existing right-of-way. The project will not generate more traffic in the area, but will provide a continuous pedestrian and vehicular connection within the Bunker Hill area.				
Type of Project (use Table 1 on instruction sheet) Change to existing regionally significant street				
County Los Angeles	Narrative Location/Route & Postmiles Upper 2 nd Street, Olive-Grand, City of Los Angeles; 07-LA-0 Caltrans Projects – EA# 07-932493			
Lead Agency: City of Los Angeles (CEQA); FHWA (NEPA)				
Contact Person Maria E. Martin, City of LA	Phone# (213) 485-5753	Fax# (213) 847-0656	Email Maria.Martin@lacity.org	
Hot Spot Pollutant of Concern (check one or both) PM2.5 X PM10				
Federal Action for which Project-Level PM Conformity is Needed (check appropriate box)				
Categorical Exclusion (NEPA)	EA or Draft EIS	FONSI or Final EIS	X PS&E or Construction	Other
Scheduled Date of Federal Action:				
Current Programming Dates as appropriate				
	PE/Environmental	ENG	ROW	CON
Start	2004	2001	N/A	2007
End	2005 (Categorical Exclusion)	2006	N/A	2008

Project Purpose and Need (Summary): *(attach additional sheets as necessary)*

This project will eliminate the gap in the Upper 2nd Street roadway at the top of Bunker Hill. The purpose of the project is to provide connectivity between Upper Grand Avenue and Olive Street thus enhancing the circulation system within Bunker Hill.

The Upper 2nd Street project has been identified as a critically needed transportation improvement to enhance the circulation system within the Bunker Hill area and provide capacity relief to the parallel 1st and 2nd streets. The need is associated with development on Grand Avenue, including the Walt Disney Concert Hall, the Colburn School of Performing Arts, the County of Los Angeles office development, and proposed mixed-use, high density residential and commercial projects. The improvement will also provide access for visitors to the Cathedral of Our Lady of Guadalupe of the Angels, the Central Library, the Music Center, and the Museum of Contemporary Art.

As indicated above, the project will not generate more traffic in the area, but will provide a continuous pedestrian and vehicular connection within the Bunker Hill area.

Surrounding Land Use/Traffic Generators *(especially effect on diesel traffic)*

The project site is located within an area known as the Bunker Hill Redevelopment Plan area in downtown Los Angeles. The project site is bounded on the north by a parking structure, south by the Colburn School of Performing Arts, west by Upper Grand Avenue, and east by Olive Street. Other notable uses within the project area include the Museum of Contemporary Art, Disney Concert Hall, L.A. County Court, Intercontinental Hotel, multi-family (high-rise) residential, and offices. Regional access to the site is provided by the 110 Freeway, located approximately one-half mile west of the project site and the 101 Freeway, located approximately one-half mile north of the project site. Local access is provided by Upper Grand Avenue and Olive Street.

Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility
Year 2008 No Build: NA

Year 2008 "Build" estimates from existing (2004) volumes presented in the *Upper 2nd Street Traffic Study*:

AADT = 4,316; % trucks 1.0*; truck AADT 43; % buses = 0.5*; bus AADT = 22

* According to Kimley-Horn and Associates, "[t]he planned segment of Upper 2nd Street is one block long with a significant incline. As designed, the segment would have no access driveways and no on-street loading zones. Therefore, it is expected that a minimal amount of truck traffic would utilize the roadway. The percentage of truck traffic that is assumed to use the roadway is 1%. Similarly, it is unlikely that many buses will utilize the roadway. Transit routes in the vicinity of Bunker Hill are designed such that it would be very unlikely that they would be rerouted to utilize the new segment of Upper 2nd Street. However, it is possible that school buses or other bus vehicles may utilize the roadway to access adjacent cultural land uses. Therefore, a 0.5% assumption was made to represent potential bus traffic on Upper 2nd Street between Upper Grand Avenue and Olive Street" (October 20, 2006).

RTP Horizon Year / Design Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility
Year 2025 No Build: NA

Year 2025 "Build" estimates from existing (2004) volumes presented in the *Upper 2nd Street Traffic Study*:

AADT = 5,567; % trucks 1.0*; truck AADT 56; % buses = 0.5*; bus AADT = 28

* According to Kimley-Horn and Associates, "[t]he planned segment of Upper 2nd Street is one block long with a significant incline. As designed, the segment would have no access driveways and no on-street loading zones. Therefore, it is expected that a minimal amount of truck traffic would utilize the roadway. The percentage of truck traffic that is assumed to use the roadway is 1%. Similarly, it is unlikely that many buses will utilize the roadway. Transit routes in the vicinity of Bunker Hill are designed such that it would be very unlikely that they would be rerouted to utilize the new segment of Upper 2nd Street. However, it is possible that school buses or other bus vehicles may utilize the roadway to access adjacent cultural land uses. Therefore, a 0.5% assumption was made to represent potential bus traffic on Upper 2nd Street between Upper Grand Avenue and Olive Street" (October 20, 2006). Furthermore, no heavy-duty trucks drive in this area. The majority of the trucks using this area of downtown are delivery trucks.

Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT

RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT

Describe potential traffic redistribution effects of congestion relief (*impact on other facilities*)

The traffic analysis and report for this project (Kimley-Horn and Associates, Inc., 2004) indicate project implementation would not result in any trip generation, but rather a redistribution of traffic along local roadways. The redistribution of traffic within the Bunker Hill area would result in minimal changes to the level of service, both existing and future with project and without project scenarios, of the intersections that were studied as part of the traffic analysis for this project.

Comments/Explanation/Details (*attach additional sheets as necessary*)

Although the proposed Upper 2nd Street Extension project is located within a non-attainment area for federal PM standards, the project would not be considered a project of air quality concern (POAQC), as defined by the Conformity Rule and 40 CFR 93.123(b)(1) for the following reasons:

- i. The proposed project is not a new or expanded highway project that has a significant number of or significant increase in diesel vehicles. The facility's AADT is 4,316 for 2008 and 5,567 for 2025. The truck and bus traffic would be 1.5% (1% for trucks + 0.5% for buses), or 65 (2008) and 84 (2025) AADT, which are well below the 8% diesel truck volume or the 10,000 truck AADT threshold for a POAQC.
- (ii) The proposed project would not affect intersections that are at Level-of-Service D, E, or F with a significant number of diesel vehicles, or those that will change to Level-of-Service D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project. As indicated above, the facility would serve a very low percentage of trucks and buses and the percentage of truck and bus traffic is not anticipated to increase.
- (iii) The proposed project does not include the construction of a new bus or rail terminals.
- (iv) The proposed project does not expand an existing bus or rail terminal.

Therefore, no further air quality analysis is warranted for this project.

Figure 1: Project Location

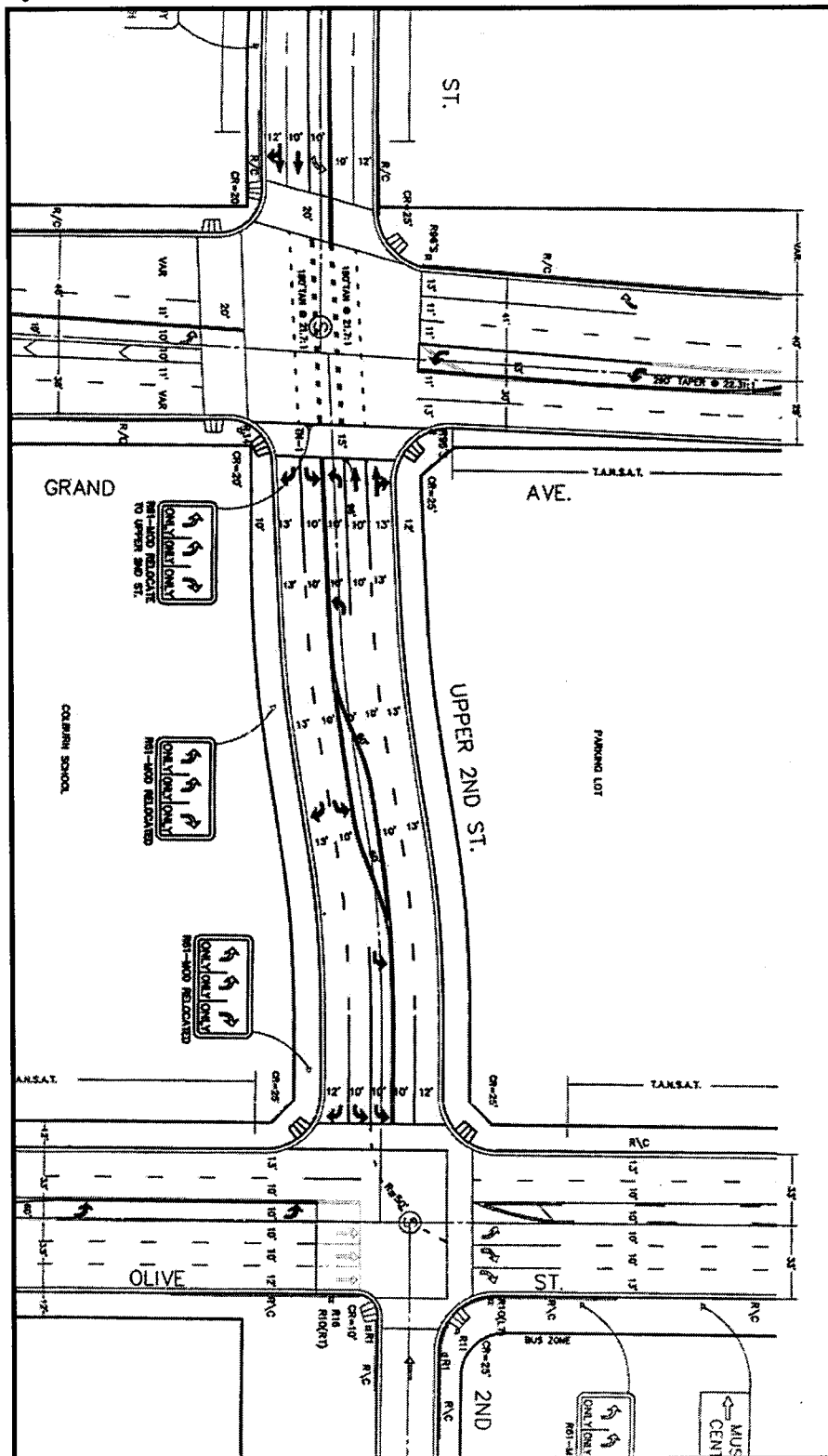
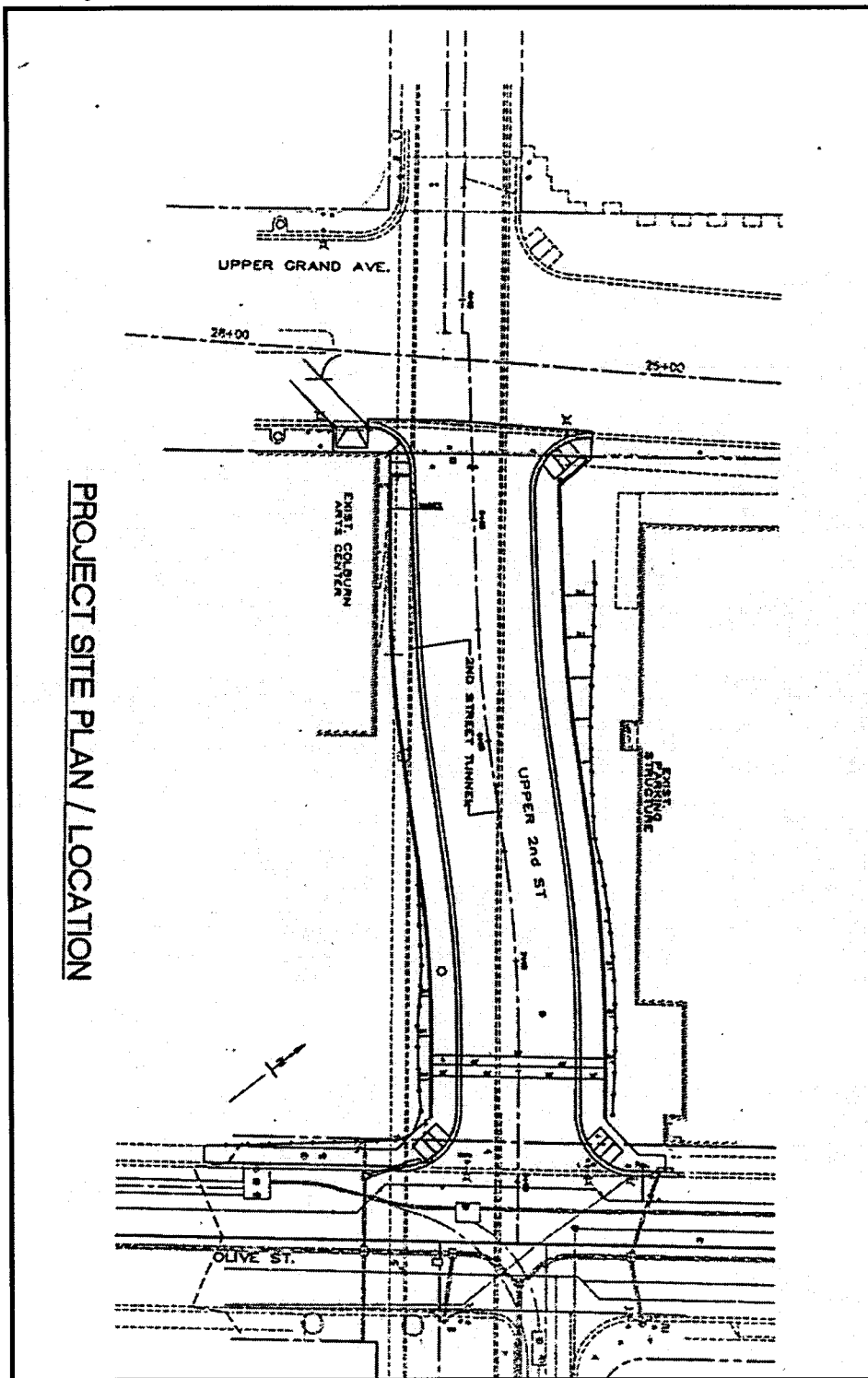


Figure 2: Project Site Plan



RTIP ID# (required) LA996134				
Project Description (clearly describe project) <p>The proposed project is located at the northern end of the City of Los Angeles partially within the city limits and partially within an unincorporated section of Los Angeles County, at the intersection of Interstate 5 and State Route 14. The project proposes to construct an elevated direct high occupancy vehicle (HOV) connector from Interstate 5 (I-5) to State Route (SR) 14 and vice versa. Due to widening in the existing I-5 median for the HOV connector, the project also involves realignments of existing NB Truck Route to further east of the mainline, Balboa Boulevard overcrossing off-ramp, and Weldon Creek Channel. Although the project proposes to realign a portion of the NB truck route, it does not propose to increase capacity of the truck routes and no other work is proposed along the existing direct truck connectors or truck routes parallel to I-5.</p>				
Type of Project (use Table 1 on instruction sheet) Change to Existing State Highway				
County Los Angeles	Narrative Location/Route & Postmiles On I-5, PM R44.2/R46.0, from Balboa Blvd to 0.6 mile south of Weldon Canyon Rd. On SR-14, PM R24.8/R25.2, from I-5 Junction to Sierra HWY undercrossing Caltrans Projects – EA# 16800			
Lead Agency: Caltrans				
Contact Person Andrew Yoon	Phone# 213.897.6117	Fax# 213.897.1634	Email Andrew.Yoon@dot.ca.gov	
Hot Spot Pollutant of Concern (check one or both) PM2.5 X PM10				
Federal Action for which Project-Level PM Conformity is Needed (check appropriate box)				
Categorical Exclusion (NEPA)	EA or Draft EIS	FONSI or Final EIS	X PS&E or Construction	Other
Scheduled Date of Federal Action: 4/9/07				
Current Programming Dates as appropriate				
	PE/Environmental	ENG	ROW	CON
Start	10/7/99	1/14/02	4/3/02	6/26/07
End	5/30/01	12/15/06	4/9/07	10/29/10
Project Purpose and Need (Summary): (attach additional sheets as necessary) <p>SR-14 currently experiences congestion while carrying substantial traffic volume through the study area during peak hours. Long-Range projections indicate an increase in person trips along this freeway section associated with the continuing development along the project corridor. This project would provide a queue by-pass for rideshare vehicles; increase people carrying capacity of the freeway; improve the level of service; and reduce congestion during peak periods. There is a critical need to eliminate existing and projected freeway congestion by improving the people carrying capacity of this interchange and to reduce number of accidents. Improvements are also needed to allow for the continuity of the proposed interregional HOV system to the outlying communities of Palmdale and Lancaster.</p>				
Surrounding Land Use/Traffic Generators (especially effect on diesel traffic) <p>The land use immediately surrounding the project area includes mostly mountainous and non-urban with a small amount of public and semi-public facilities such as utilities, railroads, and public buildings. There are no residential areas located within the immediate vicinity of the proposed project.</p>				

PM Conformity Hot Spot Analysis – Project Summary for Interagency Consultation

Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

Year 2010		Build				No-Build			
		AM LOS	PM LOS	AADT	Truck AADT*	AM LOS	PM LOS	AADT	Truck AADT*
SR-14 CONN (NB)	Mixed Flow	C	F0	77,500	667	C	F1	89,900	667
	HOV	A	E	12,400	0	X			
SR-14 CONN (SB)	Mixed Flow	F0	C	75,000	645	F2	D	92,600	645
	HOV	E	C	17,600	0	X			

* Note: Truck volumess consist only of 3- and 4-axle vehicles because 5-axle vehicles are directed to the truck-only routes in the same direction within the vicinity of this junction.

RTP Horizon Year / Design Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

Year 2030		Build				No-Build			
		AM LOS	PM LOS	AADT	Truck AADT*	AM LOS	PM LOS	AADT	Truck AADT*
SR-14 CONN (NB)	Mixed Flow	D	F3	113,000	972	D	F3	131,000	972
	HOV	A	F3	18,000	0	X			
SR-14 CONN (SB)	Mixed Flow	F3	E	110,000	946	F3	F0	136,000	946
	HOV	F3	D	26,000	0	X			

* Note: Truck volumes consist only of 3- and 4-axle vehicles because 5-axle vehicles are directed to the truck-only routes in the same direction within the vicinity of this junction.

Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT

N/A

RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT

N/A

Describe potential traffic redistribution effects of congestion relief (*impact on other facilities*)

This project provides a direct HOV connection from I-5 to SR-14 and vice versa. This project will improve traffic operations by providing queue by-pass for rideshare vehicles, and therefore, reduce congestion on mixed flow as well and improved level of service of the corridor. This project will improve operations by eliminating the need for HOVs to merge and weave into the mixed flow traffic to connect to and from I-5 and SR-14.

As indicated in the Land Use, the project is located in a mountainous and non-urban setting that lacks significant parallel and cross arterials. Lack of significant industrial or commercial land uses within the immediately surrounding area results in low potential for traffic redistribution in the general vicinity. On the other hand, the HOV traffic and mixed flow traffic benefit from this project by eliminating the need for merging and weaving as indicated above.

Comments/Explanation/Details (*attach additional sheets as necessary*)

This project provides an elevated and direct HOV to HOV connector between I-5 and SR-14. This project will provide queue by-pass for rideshare vehicles; increase people carrying capacity of the route; reduce congestion by providing continuous and direct HOV lane from I-5 to SR-14 and vice versa; improve level of service; and reduce traffic densities on the routes.

Heavy-duty truck traffic is diverted to and directed to the "truck only" routes just south of the project limits along the I-5; and just north of project limits along the SR-14. As a result, truck traffic carried by the mixed flow lanes within this project limits is limited to 3- and 4-axle trucks. As indicated in the tables above, this project is not expected to significantly affect truck traffic within the project limits of I-5 and SR-14.

The project is currently in PS&E or design phase and a review by the TCWG in regard to PM_{2.5} conformity requirement is deemed necessary. Based on the composition of truck populations utilizing the existing and proposed connector facilities, truck volume (3- and 4 axles) of less than 1,000, indicated land use, and low potential for increase in truck volumes between Build and No-Build, it is believed that this project is not a project of air quality concern.

RTIP ID# (required) LAE2198				
Project Description (clearly describe project) Under the proposed Build Alternative, the I-405 and Avalon Blvd intersection would be reconfigured to provide access to and from the future Carson Marketplace project (Southwest of the intersection), extend Lenardo Dr. to Avalon Blvd, realign and reconfigure existing ramps at Avalon Blvd; and construct a new SN on-ramp (See attached figures). The proposed project would: <ul style="list-style-type: none"> ▪ Extend Lenardo Drive to Avalon Blvd (including constructing a new bridge over Torrance Lateral storm channel); ▪ Realign and reconstruct the existing SB I-405 off-ramp to connect to the proposed Lenardo Dr. extension; ▪ Realign existing SB on-ramp next to terminus of the reconstructed SB I-405 off-ramp for access by HOVs only; ▪ Construct a new SB on-ramp east of Avalon Blvd for access by mixed flow from NB Avalon Blvd and EB Lenardo Dr.; ▪ Realign and widen the existing NB off-ramp from 1 lane to 3 lanes (at the its terminus only); ▪ Realign the existing NB on-ramp and signalize the existing right-turn lane from SB Avalon Blvd; and ▪ Modify the existing Avalon Blvd to accommodate additional turning movements anticipated by the proposed realignment, addition of ramps, and extension of Lenardo Dr. 				
Type of Project (use Table 1 on instruction sheet) Reconfigure Existing Interchange				
County Los Angeles		Narrative Location/Route & Postmiles LA-405 PM 10.8/11.4, at Avalon Blvd interchange, approximately 1.3 miles south of I-405/I-110 Interchange Caltrans Projects – EA# 23399		
Lead Agency: Caltrans				
Contact Person Andrew Yoon		Phone# 213.897.6117	Fax# 213.897.1634	Email Andrew.Yoon@dot.ca.gov
Hot Spot Pollutant of Concern (check one or both) PM2.5 X PM10 X				
Federal Action for which Project-Level PM Conformity is Needed (check appropriate box)				
X	Categorical Exclusion (NEPA)	EA or Draft EIS	FONSI or Final EIS	PS&E or Construction
Other				
Scheduled Date of Federal Action: September 6, 2007				
Current Programming Dates as appropriate				
	PE/Environmental	ENG	ROW	CON
Start	1/23/03	9/7/07	10/31/08	1/28/09
End	9/6/07	9/5/08	10/17/08	4/5/10

Project Purpose and Need (Summary): *(attach additional sheets as necessary)*

The need for the modification of the I-405/Avalon Boulevard interchange was first identified in the early 1990s as one of the conditions of approval for a then proposed development referred to as the Metro 2000 Project, a regional shopping mall to be constructed at the southwest quadrant of the interchange. The modification was proposed as the most effective way of mitigating impacts of that project.

The Metro 2000 Project did not move forward. However, continued interest in development of the former Metro 2000 Project site culminated with the approval of the Carson Marketplace Project in February 2006. The currently proposed Carson Marketplace Project is a 168-acre, mixed-use development with neighborhood commercial, regional commercial, recreation/entertainment, restaurant, hotel, and residential uses. The Carson Marketplace Project, like the Metro 2000 Project, requires the proposed improvements for the I-405/Avalon Boulevard interchange for its full implementation.

Without implementation of the Build Alternative, considerable reductions in the level of traffic services at numerous intersections in the project vicinity would occur, as indicated in the analysis of service levels at the 14 most impacted intersections in the project vicinity. Under the current conditions, none of the intersections is operating at level E or F during any peak hour. At the 2030 design year, service levels under the No Build Alternative would be at LOS E or F at four intersections with reduced service elsewhere in the system. Particularly affected would be the intersections of Main Street and Carson Street (with delays increasing from 42.5 seconds to 162.0 seconds in the P.M. peak hour), Main Street and Torrance Boulevard (with delays increasing from 26.6 seconds to 114.2 seconds in the P.M. peak hour) and Avalon Boulevard and Del Amo Boulevard (with delays increasing from 30.6 seconds in the P.M. peak hour to 98.4 seconds in the P.M. peak hour).

The expected development of the Metro 2000/Carson Marketplace Project site, and the related improvements have been considered by the City in the preparation of their 2004 update to the City of Carson General Plan. The improvements were incorporated into traffic studies and in the selection of future land use designations. The proposed improvements would support development of the Carson Marketplace Project and would also meet the needs of otherwise growing traffic volumes in the project vicinity.

The project is proposed to accomplish the following purposes:

- Provide congestion relief from existing and future operating conditions at the intersection of I-405 and Avalon Boulevard.
- Link the Carson Marketplace Project site as well as other areas west of the I-405 with a direct route to the I-405 Freeway.
- Provide a balanced circulation system, reduce out of direction travel, reduce vehicle miles traveled, and provide traffic relief for other intersections in the vicinity.
- Support existing plans of the City of Carson and its economic development.
- Support continued development of parcels on the west side of the City of Carson, pursuant to City Plans and Policies, and market forces for development within the City.
- Support the City's effort to implement development in accord with adopted Redevelopment Plans

Surrounding Land Use/Traffic Generators *(especially effect on diesel traffic)*

The project site is situated in a built urban area, surrounded by an array of commercial uses, with residential and service uses lying in a larger perimeter. One large vacant parcel lies next to the project site. This site is intended for development of the Carson Marketplace, a 168-acre, mixed-use development with neighborhood commercial, regional commercial, commercial recreation/entertainment, restaurant, hotel, and residential uses.

Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility**Year 2010:**

The percentage of truck traffic was obtained from the California DOT's Traffic and Vehicle Data Systems Unit. As this project is not a traffic-generating project, it is assumed that the percentage of truck traffic will remain the same over time. The proposed Build Alternative involves improvements for the intersections and ramps that provide access to and from the I-405 freeway. The project does not propose enhancements to the main-line freeway that would increase the freeway capacity.

	No Build				Build			
	LOS ¹		AADT ²	Truck AADT	LOS		AADT	Truck AADT
Intersection Location	AM	PM			AM	PM		
Avalon Boulevard & I-405 NB Ramps								
- Intersection	A	B	68,255	1,638	B	D	70,814	1,700
- On Ramp	F	F	17,415	418	F	F	17,861	429
- Off Ramp	D	E	8,583	206	E	F	12,126	291
Avalon Boulevard & Lenardo Drive/I-405 SB Ramps								
- Intersection	B	A	67,034	1,609	B	B	59,409	1,426
- On Ramp (New Ramp – E of Avalon)	n/a	n/a	n/a	n/a	C	F	3,845	92
- On Ramp* (Existing Ramp)	C	F	8,596	206	n/a	n/a	n/a	n/a
- Off Ramp**	E	F	18,898	454	n/a	n/a	n/a	n/a
I-405 SB Ramps & Lenardo Drive								
- Intersection	n/a	n/a	n/a	n/a	B	B	25,302	607
- On Ramp*	n/a	n/a	n/a	n/a	C	F	8,727	209
- Off Ramp**	n/a	n/a	n/a	n/a	E	F	19,173	460

¹ LOS for ramps reflect the ramp-freeway junctions area of influence.

² AADT is based on the conversion of P.M. peak hour trips. Existing studies indicate that 7.62% of the trips in the vicinity occur during the P.M. peak hour.

* The two ramps with the * mark reflect the same ramp connection at the freeway. Under the No Build Alternative, they originate at Avalon Boulevard. Under the Build Alternative, they originate at Lenardo Drive.

** The two ramps with the ** mark reflect the same ramp connection at the freeway. Under the No Build Alternative, they outlet at Avalon Boulevard. Under the Build Alternative, they outlet at Lenardo Drive.

RTP Horizon Year / Design Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

Year 2030:

The percentage of truck traffic was obtained from the California DOT's Traffic and Vehicle Data Systems Unit. As this project is not a traffic generating project, it is assumed that the percentage of truck traffic will remain the same over time. The proposed Build Alternative involves improvements for the intersections and ramps that provide access to and from the I-405 freeway. The project does not propose enhancements to the main-line freeway that would increase the freeway capacity.

	No Build				Build			
	LOS ¹		AADT ²	Truck AADT	LOS		AADT	Truck AADT
Intersection Location	AM	PM			AM	PM		
Avalon Boulevard & I-405 NB Ramps								
- Intersection	A	B	75,066	1,802	B	D	72,572	1,742
- On Ramp	F	F	17,415	418	F	F	18,819	452
- Off Ramp	E	E	8,583	206	E	F	12,520	300
Avalon Boulevard & Lenardo Drive/I-405 SB Ramps								
- Intersection	B	B	63,176	1,516	B	B	70,525	1,693
- On Ramp (New Ramp – E of Avalon)	n/a	n/a	n/a	n/a	C	F	3,845	92
- On Ramp* (Existing Ramp)	C	F	8,596	206	n/a	n/a	n/a	n/a
- Off Ramp**	F	F	18,898	454	n/a	n/a	n/a	n/a
I-405 SB Ramps & Lenardo Drive								
- Intersection	n/a	n/a	n/a	n/a	B	B	43,714	1,049
- On Ramp*	n/a	n/a	n/a	n/a	C	F	10,223	245
- Off Ramp**	n/a	n/a	n/a	n/a	F	F	20,315	488

¹ LOS for ramps reflect the ramp-freeway junctions area of influence.

² AADT is based on the conversion of P.M. peak hour trips. Existing studies indicate that 7.62% of the trips in the vicinity occur during the P.M. peak hour.

* The two ramps with the * mark reflect the same ramp connection at the freeway. Under the No Build Alternative, they originate at Avalon Boulevard. Under the Build Alternative, they originate at Lenardo Drive.

** The two ramps with the ** mark reflect the same ramp connection at the freeway. Under the No Build Alternative, they outlet at Avalon Boulevard. Under the Build Alternative, they outlet at Lenardo Drive.

Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT

Cross-Street Segment	No Build		Build	
	AADT	Truck AADT	AADT	Truck AADT
Avalon Boulevard between NB and SB Ramps	50,197	1,205	53,268	1,278
Lenardo Drive between Ramps and Avalon Blvd.	n/a	n/a	35,406	850

RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT

Cross-Street Segment	No Build		Build	
	AADT	Truck AADT	AADT	Truck AADT
Avalon Boulevard Between NB Ramps and SB Ramps	54,331	1,304	55,604	1,334
Lenardo Drive Between Ramps and Avalon Blvd.	n/a	n/a	36,834	885

Describe potential traffic redistribution effects of congestion relief (impact on other facilities)

This project would improve traffic conditions in the surrounding area by providing a direct link between the Carson Marketplace site and the I-405 interchange, thereby redistributing a considerable number of trips from circuitous routes to the interchange. This redistribution would result in a reduction in VMT and the number of intersections encountered, lowering the ADT through the nearby intersections.

The potential traffic redistribution as a result of the Build alternative would result in a net traffic benefit and reduce congestion in the project vicinity. The project will improve or maintain LOS service levels at 13 of the 14 intersections analyzed, except at the Avalon Blvd/NB I-405 ramps intersection.

The LOS is shown as increased at the Avalon Blvd and NB I-405 intersection because of the addition of a new left-turn movement from the northbound off-ramp onto southbound Avalon Boulevard, with changes in the signalization phasing. Notwithstanding, the increase in the future LOS level at this intersection would still be LOS B in the A.M. peak hour and LOS D in the P.M. peak hour; and the overall number of trips through this particular intersection would be reduced by 2030 (from AADT of 75,066 without project to 72,572 with project).

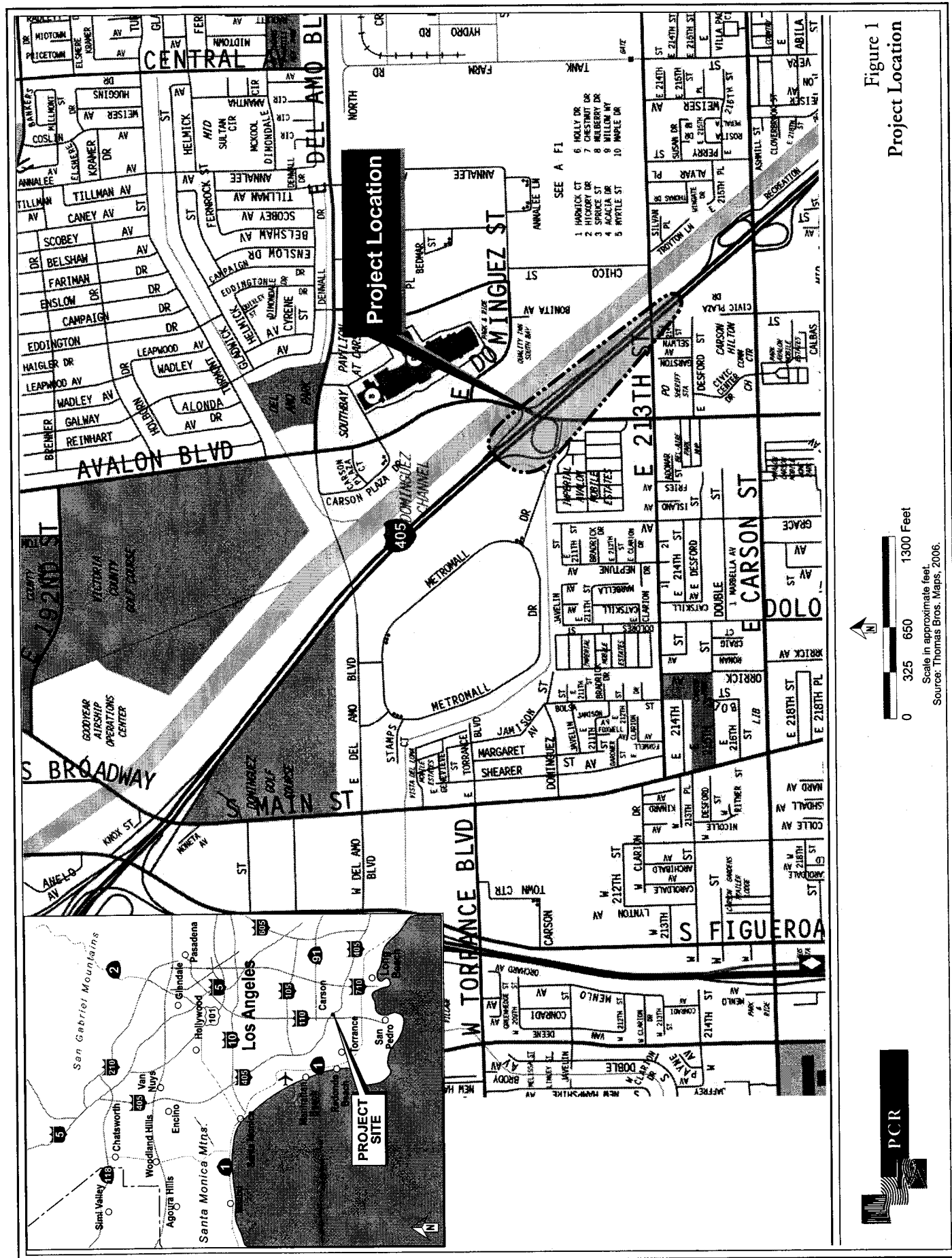
The overall number of trips goes down as southbound traffic can enter and leave the Carson Marketplace site directly without a circuitous route via Del Amo Boulevard and through the intersection. See attached Table 1 for traffic data at all analyzed intersections.

Delay time improvements

In addition to improvements in LOS and traffic volumes, the delay time through the surrounding intersections would also decrease substantially as shown in the attached Table 2. Delay times will decrease or stay the same at nine of the 14 analyzed intersections. The net delay time decreases by over 40 minutes during peak traffic hours. This decrease in delay time reduces the number of idling vehicles, thereby reducing the emissions of PM_{2.5} and PM₁₀. T

Comments/Explanation/Details (attach additional sheets as necessary)

This project proposes to provide access to the future Carson Marketplace and improve traffic operations at the I-405 and Avalon Blvd interchange by extending Lenardo Dr and realigning, widening, and constructing ramps at and within the interchange. The interchange is located in an urban area with a mix of residential and commercial uses. As indicated in the traffic data, the I-405/Avalon Blvd interchange will not experience significant truck traffic volumes in the projected future years. In addition, the project proposes to reduce the overall number of trips and significantly reduce the net delay time by over 40 minutes by 2030, which in turn, will result in reduction of idling vehicles and reduction of diesel emissions including fine dust. Based on the information provided in this review form (with low truck volumes projected, reduced number of trips, and improved net delay), it is believed that the project is not a project of air quality concern.



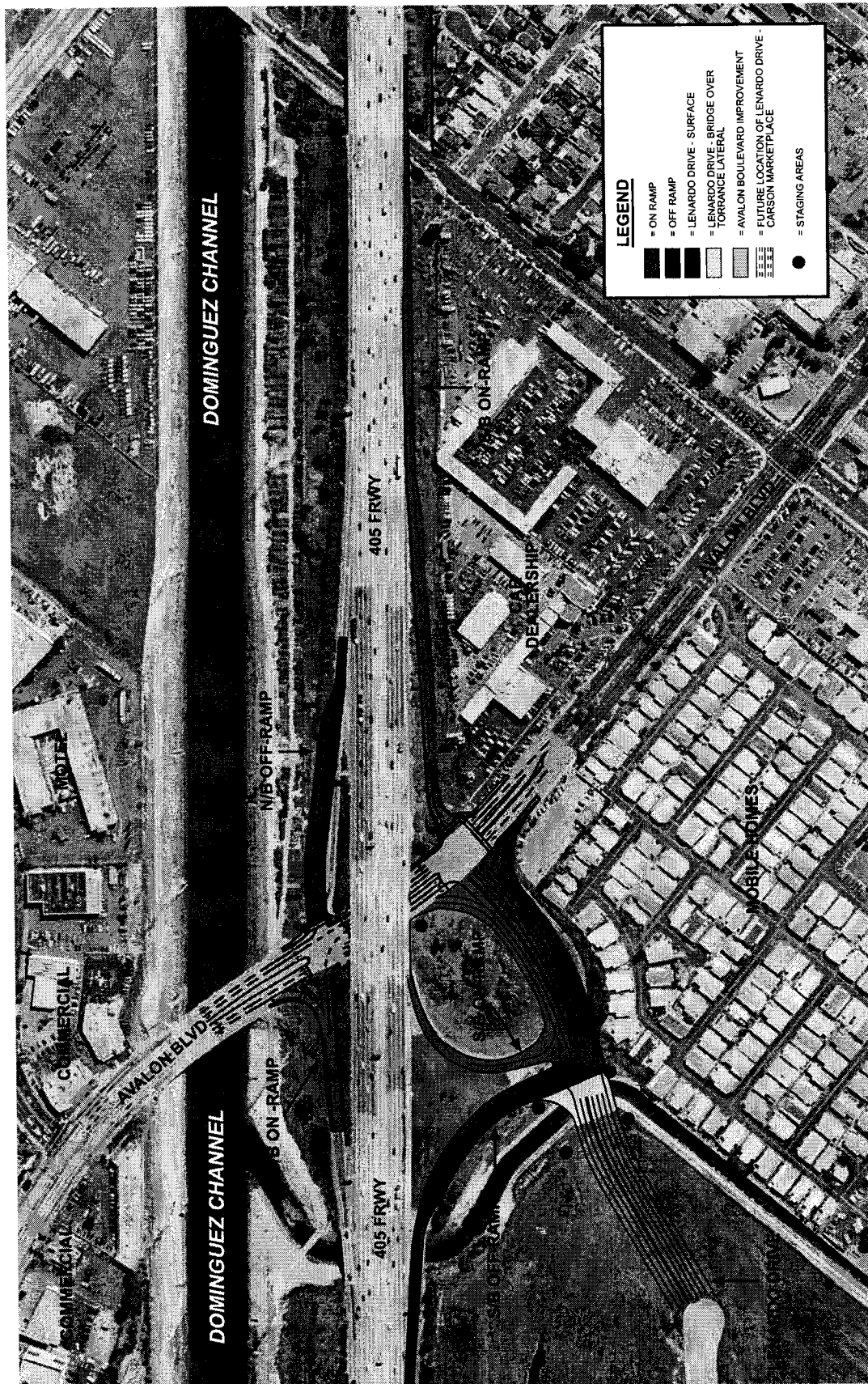


Figure 2
Project Features

Table 1
Traffic Data - All Intersections

			2010						2030							
			No Build		Build				No Build				Build			
LOS			AADT	Truck AADT	LOS		AADT	Truck AADT	LOS		AADT	Truck AADT	LOS		AADT	Truck AADT
Intersection Location	A M	P M			A M	P M			A M	P M			A M	P M		
I-405 NB Ramps & Carson Street	A	A	34,318	824	A	A	37,822	908	A	A	40,433	970	A	A	36,877	885
I-405 SB Ramps & Carson Street	A	B	37,861	909	A	A	44,724	1,073	A	B	47,651	1,144	A	A	40,709	977
Avalon Boulevard & Carson Street	C	E	66,982	1,608	C	D	75,394	1,809	D	E	80,577	1,934	C	D	72,034	1,729
Main Street & Carson Street	D	F	69,790	1,675	D	E	79,160	1,900	D	F	83,976	2,015	D	F	74,619	1,791
Avalon Boulevard & 213th Street	B	C	51,483	1,236	B	C	53,780	1,291	B	C	57,625	1,383	B	C	55,210	1,325
Avalon Boulevard & I- 405 NB Ramps	A	B	68,255	1,638	B	D	70,814	1,700	A	B	75,066	1,802	B	D	72,572	1,742
Avalon Boulevard & Lenardo Drive/I- 405 SB On- Ramp	B	A	67,034	1,609	B	B	59,409	1,426	B	B	63,176	1,516	B	B	70,525	1,693
I-405 SB Ramps & Lenardo Drive	-	-	42,336	1,016	B	B	25,302	607	-	-	-	-	B	B	43,714	1,049
Main Street & Torrance Boulevard	E	F	48,163	1,156	D	D	59,816	1,436	E	F	62,480	1,500	E	E	50,827	1,220
Main Street & Lenardo Drive	B	D	43,937	1,054	A	B	56,496	1,356	B	D	58,399	1,402	A	B	45,840	1,100
Avalon Boulevard & Del Amo Boulevard	D	F	65,472	1,571	C	D	75,879	1,821	D	F	80,486	1,932	C	E	70,066	1,682
Stamps Drive & Del Amo Boulevard	C	E	55,604	1,334	C	C	66,234	1,590	C	E	67,493	1,620	C	C	56,864	1,365
Main Street & I- 405 NB Off- Ramp	B	B	33,425	802	B	B	33,425	802	B	B	35,722	857	B	B	35,722	857
Main Street & I- 405 SB On- Ramp	A	B	35,604	854	A	B	35,604	854	A	B	38,084	914	A	B	38,084	914
TOTAL			720,262	17,286			773,858	18,573			791,168	18,988			763,661	18,328

TABLE 2
DESIGN YEAR (2030) INTERSECTION LEVEL OF SERVICE ANALYSIS

		2030							
Intersection		Peak	No Build Alternative		Build Alternative		Change in Delay	Significant Impact?	
		Hour	Delay ^[1]	LOS ^[2]	Delay ^[1]	LOS ^[2]			
1	Carson St & I-405 N/B Ramps	AM	5.6	A	6.3	A	0.7	No	
		PM	5.0	A	5.4	A	0.4	No	
2	Carson St & I-405 S/B Ramps	AM	9.8	A	6.4	A	-3.4	No	
		PM	16.7	B	6.9	A	-9.8	No	
3	Avalon Bl & Carson St	AM	49.4	D	29.5	C	-19.9	No	
		PM	66.0	E	47.3	D	-18.7	No	
4	Main St & Carson St	AM	44.2	D	40.2	D	-4.0	No	
		PM	162.0	F	82.9	F	-79.1	No	
5	Avalon Bl & 213th St	AM	17.4	B	17.5	B	0.1	No	
		PM	25.7	C	33.4	C	7.7	No	
6	Avalon Bl & I-405 N/B Ramps	AM	7.0	A	12.2	B	5.2	No	
		PM	19.7	B	53.7	D	34.0	No	
7	Avalon Bl & Lenardo Dr/I-405 S/B On-Ramp	AM	13.5	B	17.3	B	3.8	No	
		PM	10.9	B	17.8	B	6.9	No	
8	Lenardo Dr & I-405 S/B Ramps	AM	Future Intersection [3]		16.6	B	Not Applicable		
		PM			16.3	B			
9	Main St & Torrance Bl	AM	85.2	E	56.7	E	-28.5	No	
		PM	114.2	F	64.7	E	-49.5	No	
10	Main St & Lenardo Dr	AM	10.4	B	7.6	A	-2.8	No	
		PM	53.8	D	16.8	B	-37.0	No	
11	Avalon Bl & Del Amo Bl	AM	42.1	D	32.6	C	-9.5	No	
		PM	98.4	F	71.8	E	-26.6	No	
12	Stamps Dr & Del Amo Bl	AM	24.9	C	21.7	C	-3.2	No	
		PM	77.4	E	34.1	C	-43.3	No	
13	Main St & I-405 N/B Ramps	AM	15.7	B	15.7	B	0.0	No	
		PM	13.6	B	13.6	B	0.0	No	
14	Main St & I-405 S/B Ramps	AM	9.9	A	9.9	A	0.0	No	
		PM	17.9	B	17.9	B	0.0	No	

Notes:

- [1] Average delay in seconds per vehicle.
- [2] Level of service (LOS) calculated using 2000 Highway Capacity Manual level-of-service methodology.
- [3] Intersection does not exist; to be constructed as part of I-405/Avalon interchange improvement project.

PM Conformity Hot Spot Analysis – Project Summary for Interagency Consultation

RTIP ID# <i>(required)</i> 200018				
Project Description <i>(clearly describe project)</i> Boulder Avenue Widening Project. Boulder Avenue across City Creek Wash south of Baseline, reconstruct existing bridge from 2 to 4 lanes. In addition, widen Boulder Avenue from 190 feet north to 1,430 feet south of the bridge from 2 to 4 lanes to match existing 4 lanes on Boulder Avenue north and south of the bridge.				
Type of Project <i>(use Table 1 on instruction sheet)</i> Change to an existing regionally significant street.				
County San Bernardino	Narrative Location/Route & Postmiles Boulder Avenue Widening (0.31 mile long) Caltrans Projects – EA# 08-924830			
Lead Agency: City of Highland				
Contact Person Dennis Barton	Phone# 909-864-8732 x251	Fax# 909-862-3180	Email dbarton@cityofhighland.org	
Hot Spot Pollutant of Concern <i>(check one or both)</i> PM2.5 x PM10 x				
Federal Action for which Project-Level PM Conformity is Needed <i>(check appropriate box)</i>				
x Categorical Exclusion (NEPA)	EA or Draft EIS	FONSI or Final EIS	PS&E or Construction	Other
Scheduled Date of Federal Action: March 2007				
Current Programming Dates <i>as appropriate</i>				
	PE/Environmental	ENG	ROW	CON
Start	2006	2008	2008	2009
End	2007	2008	2009	2010
Project Purpose and Need (Summary): <i>(attach additional sheets as necessary)</i> The purpose of the proposed project is to replace the existing bridge which is structurally deficient and functionally obsolete with a new bridge widened to four (4) lanes to tie in to existing improvements on both ends of the project limits.				

<p>Surrounding Land Use/Traffic Generators <i>(especially effect on diesel traffic)</i></p> <p>The land uses within the vicinity of the proposed project include open space, residential, and commercial developments.</p>
<p>Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility</p> <p>LOS A, Total ADT = 6,630*, Truck ADT = 351* (5.3%¹), Year 2006</p> <p>* These traffic volumes apply to both the No Build and Build Alternatives.</p>
<p>RTP Horizon Year / Design Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility</p> <p>LOS F/A², Total ADT = 20,200*, Truck ADT = 1,071* (5.3%), Year 2030</p> <p>* These traffic volumes apply to both the No Build and Build Alternatives.</p>
<p>Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT</p> <p>N/A³</p> <p>RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT</p> <p>N/A</p>
<p>Describe potential traffic redistribution effects of congestion relief <i>(impact on other facilities)</i></p> <p>See attached analysis</p>
<p>Comments/Explanation/Details <i>(attach additional sheets as necessary)</i></p> <p>See attached analysis</p>

-
- ¹ SR-30 at Base Line Road traffic mix.
- ² No Project/With Project levels of service.
- ³ Not applicable.

Particulate Matter (PM₁₀ and PM_{2.5}) Analysis

The proposed project is within a nonattainment area for federal PM_{2.5} and PM₁₀ standards. Therefore, per 40 CFR Part 93 analyses are required for conformity purposes. However, the EPA does not require hot-spot analyses, qualitative or quantitative, for projects that are not listed in section 93.123(b)(1) as an air quality concern. The project does not qualify as a project of air quality concern (POAQC) because of the following reasons:

- i. The proposed project would increase the capacity of Boulder Avenue. However, based on the *Traffic Analysis* (LSA Associates, Inc., July 2006), the proposed project would not result in any increases in the traffic volumes along Boulder Avenue. The traffic volumes along Boulder Avenue would not exceed the 125,000 average daily trips threshold for a POAQC. In addition, as the existing land uses within the vicinity of the interchange are primarily residential and retail the truck traffic would not exceed eight percent truck volume threshold for POAQC. The actual truck percentage along Boulder Avenue is unknown. Therefore, the truck ADTs were calculated using the truck percentage from SR-30 at Base Line Road. Using this worst case assumption would result in 1,071 truck trips, lower than the 10,000 truck ADT threshold for POAQC. The future traffic volumes along Boulder Avenue are shown in Table A.
- ii. The proposed project does not affect intersections that are at level of service (LOS) D, E, or F with a significant number of diesel vehicles. The purpose of the proposed project is to eliminate the existing chokepoint along Boulder Avenue. The removal of this chokepoint would reduce the delay and improve the LOS within the project vicinity. The LOS conditions in the project vicinity with and without the proposed project are shown in Table A.
- iii. The proposed project does not include the construction of a new bus or rail terminal.
- iv. The proposed project does not expand an existing bus or rail terminal.

Therefore, the proposed project meets the Clean Air Act requirements and 40 CFR 93.116 without any explicit hot-spot analysis. The proposed project would not create a new, or worsen an existing, PM₁₀ or PM_{2.5} violation.

Table A - Year 2030 Daily Traffic Volumes, V/C Ratios, and LOS

Roadway Segment		Volume (ADT)	Capacity	V/C Ratio	LOS
Boulder Avenue	Two lanes undivided	20,200	16,300	1.24	F
	Four lanes divided	20,200	34,500	0.59	A

RTIP ID# (required) SBD44810				
<p>Project Description <i>(clearly describe project)</i></p> <p>The description provided in the RTIP is as follows: "I-10 Tippecanoe Interchange I/C configuration & add auxiliary lanes (auxiliary lane is for eastbound traffic from Waterman On-ramp to Tippecanoe Off-ramp).</p> <p>Interstate 10 (I-10) is a major urban freeway serving commuter, trucking and personal travel needs for a number of cities and communities in Los Angeles, San Bernardino and Riverside Counties. The existing Tippecanoe Avenue/I-10 Interchange on-ramps and off-ramps, and intersections at the ramp termini within the project limits, are already operating either at capacity or in excess of capacity. Unless improvements are implemented in the near future for the Tippecanoe Avenue/I-10 Interchange, traffic conditions are expected to worsen over time, resulting in increased commuting times, greater commuter frustration, higher travel costs, and increased air pollution. In addition, poor levels of service are expected to result in adverse impacts on adjacent interchanges and the local street network as motorists seek less-congested alternate routes.</p> <p>In August 2002, Caltrans approved a Project Study Report (Project Development Support) [PSR (PDS)] identifying the need for a modification/improvement of Tippecanoe Avenue/I-10 Interchange. The PSR(PDS) recommended the access to the freeway by upgrading the Tippecanoe Avenue/I-10 Interchange with the addition of new ramps and widening of existing ramps. The PSR(PDS) also recommended reducing congestion of Tippecanoe Avenue and Anderson Street by adding through and turn lanes and increasing the distance between ramp termini intersections and the intersection at Anderson Street/Redlands Boulevard.</p> <p>San Bernardino Associated Governments (SANBAG), in conjunction with the City of Loma Linda, the Loma Linda University Medical Center, and the City of San Bernardino, lead agencies for this study, in cooperation with the California Department of Transportation (Caltrans), is advancing an alternative for the improvements of Tippecanoe Avenue/I-10 Interchange. Modification and improvement of the existing interchange will improve mainline and ramp traffic operations, reduce local street congestion and accommodate projected growth in the area.</p>				
<p>Type of Project <i>(use Table 1 on instruction sheet)</i></p> <p>Reconfigure existing interchange, intersection channelization, intersection signalization.</p>				
County San Bernardino		Narrative Location/Route & Postmiles I-10 at Tippecanoe Ave, Postmile 25.3 to 27.3		
Caltrans Projects – EA# 44810				
Lead Agency: San Bernardino Associated Governments				
Contact Person Dennis Saylor		Phone# (909)889-8611 x132	Fax# (909)388-2002	Email dsaylor@sanbag.ca.gov
<p>Hot Spot Pollutant of Concern <i>(check one or both)</i> PM2.5 X PM10 X</p>				
Federal Action for which Project-Level PM Conformity is Needed <i>(check appropriate box)</i>				
Categorical Exclusion (NEPA)	X	EA or Draft EIS	FONSI or Final EIS	PS&E or Construction
Other				

Scheduled Date of Federal Action:**Current Programming Dates** *as appropriate*

	PE/Environmental	ENG	ROW	CON
Start	01/06	06/08	06/08	06/10
End	05/08	06/10	06/10	06/12

Project Purpose and Need (Summary): *(attach additional sheets as necessary)*

The purpose of the Tippecanoe Avenue/I-10 Interchange project is to mitigate existing and projected capacity and operational deficiencies at the Tippecanoe Avenue/I-10 Interchange and local roads from the rapidly increasing traffic demand generated by the accelerated growth and development that is taking place in the cities of Loma Linda and San Bernardino in San Bernardino County, California. It is also designed to improve local circulation on those streets and streets that feed them with emphasis on enhanced access to Loma Linda University Medical Center, Loma Linda University, Jerry Pettis Veterans Administration Hospital, San Bernardino International Trade Center and the San Bernardino International Airport.

Unless improvements are implemented in the near future for the Tippecanoe Avenue/I-10 Interchange, traffic conditions are expected to worsen over time, resulting in increased commuting times, greater commuter frustration, higher travel costs, and increased air pollution. In addition, poor levels of service are expected to result in adverse impacts on adjacent interchanges and the local street network as motorists seek less-congested alternate routes. The elevated levels of traffic congestion pose a safety hazard because emergency vehicles cannot access the health facilities in Loma Linda in a timely manner.

Traffic forecasts indicate that the eastbound Tippecanoe off-ramp is currently operating at Level of Service (LOS) D in the AM peak hour and at LOS F in the PM peak hour. Without the project, LOS will deteriorate to LOS F with delays of 6 to 9 minutes in 2035 in morning and afternoon peak hours because traffic volumes are already very high and are predicted to more than double. 2004 Average Daily Traffic (ADT) volume for this off-ramp is estimated at 14,200, with Year 2035 estimates at 32,600. With project construction, LOS will be at D in the morning and at C in the afternoon peak hours, with delays of less than a minute in both periods (SANBAG 2006). Traffic forecasts are similar for other components of the project.

The Tippecanoe Avenue/I-10 Interchange project would improve LOS at the intersections and the ramps during morning and evening rush hours, which in turn will provide for improved access to medical facilities, residential areas, commercial centers, and shopping centers. The proposed street and interchange improvements would mitigate the deficiencies documented above and provide for improved mobility and economic vitality of the area.

Surrounding Land Use/Traffic Generators *(especially effect on diesel traffic)*

The Tippecanoe Avenue/ I-10 Interchange is located within the Cities of Loma Linda and San Bernardino in the County of San Bernardino. The Cities of Loma Linda and San Bernardino are surrounded by the Cities of Colton, Highland and Redlands. The San Bernardino International Airport is located north of the project location and Loma Linda University is located south of the project location. The primary land use in the vicinity of the project site is commercial, with some residential uses (in the northeast project quadrant).

Interstate 10 serves as a major east-west freeway that originates at the junction with State Routes 1 and 2 in the City of Santa Monica, Los Angeles County, and extends easterly through the Los Angeles metropolitan area and into Arizona and terminating at the east coast in the state of Florida. East of the junction with State Route 60, I-10 has been identified in the 1998 Interregional Transportation Strategic Plan as a High Emphasis Route included in the Arizona Gateway Route. I-10 is also included in the State Freeway and Expressway System with the Federal Functional classifications of Rural Principal Arterial and extension of a Rural Principal Arterial into an urban area. I-10 is designated in the National Highway System (NHS), Department of Defense Rural Interstates and Single Routing in Urban Areas and the Strategic Highway Corridor Network (STRAHNET). Based on Caltrans historic traffic data, the 2005 average daily traffic (ADT) on I-10 ranges from 28,000 at the Arizona State Line to 329,000 in the City of Los Angeles.

Interstate 10 is the major corridor for interstate and interregional movement of people and goods and is one of the major commuter routes between Los Angeles and the Inland Empire (San Bernardino and Riverside Counties). In addition, the I-10 corridor is the major link between the rural areas in eastern Riverside County to the urban centers in the western part of San Bernardino County. It also serves the recreational traffic from Los Angeles and western San Bernardino and Riverside Counties to the resorts in the Coachella Valley, the Salton Sea area and recreational facilities along the Colorado River. I-10, in the Cities of Loma Linda and San Bernardino, is an eight-lane facility with four mixed flow lanes in each direction separated by a median with concrete barrier. The 2000 Route Concept Fact Sheet projects the need for an additional High Occupancy Vehicle (HOV) lane in each direction through the proposed project limits.

Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

Opening Year is 2012. LOS analysis is currently not available. AADT = 253,010. Truck AADT = 30,361 (12%)

Note: Information above is based on linear interpolation based on 2004 Existing Data and 2035 Forecasted Data.

RTP Horizon/Design Year : Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

Refer to tables shown below for LOS. AADT = 326,970. Truck AADT = 39,236 (12%)

MAINLINE FREEWAY LOS SUMMARY

Dir	From/To:	2004 Existing	2035 Alternative 1 No Build Condition	2035 Alternative 2 Build Condition
EB	Waterman Ave. to Tippecanoe Ave.	C / E	E / F	D / F
	Tippecanoe Ave. to Mountain View Ave.	C / E	C / F	C / F
WB	Mountain View Ave. to Tippecanoe Ave.	E / D	F / E	F / E
	Tippecanoe Ave. to To Waterman Ave.	D / C	E / D	E / D

XX/XX=AM Results/ PM Results

FREEWAY RAMP LOS SUMMARY

Dir	From/To:	Section Type	2004 Existing	2035 Alternative 1 No Build Condition	2035 Alternative 2 Build Condition
EB	Tippecanoe Ave. Off-Ramp	Diverge	D / F	F / F	D / F
	Tippecanoe Ave. On-Ramp	Merge	B / C	C / F	C / F
WB	Tippecanoe Ave. Off-Ramp	Diverge	F / F	F / F	F / F
	Tippecanoe Ave. Loop On-Ramp	Merge	NA	NA	F / C

XX/XX=AM Results/ PM Results

RTP Horizon/Design Year : Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility (cont.)

FREEWAY WEAVING LOS SUMMARY

Dir	From/To:	2004 Existing	2035 Alternative 1 No Build Condition	2035 Alternative 2 Build Condition
EB	Waterman Ave. On - Tippecanoe Ave. Off	NA*	NA*	E / D
WB	Tippecanoe Ave. On - Carnegie Dr Off	C / C	E / E	C / D

XX/XX=AM Results/ PM Results

* - No Auxiliary Lane

FREEWAY RAMP INTERSECTIONS LOS SUMMARY

Intersection	2004 Existing	2035 Alternative 1 No Build Condition	2035 Alternative 2 Build Condition
Tippecanoe Ave. @ Redlands Ave.	C / D	F / F	C / D
Tippecanoe Ave. @ EB Ramps	C / D	F / F	D / C
Tippecanoe Ave. @ WB Ramps	C / D	F / F	NA
Tippecanoe Ave. @ Laurelwood Dr.	C / C	C / C	C / C

XX/XX=AM Results/ PM Results

Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT

Truck percentage is same as above.

OPENING YEAR (YEAR 2012) TRAFFIC DATA

DIRECTION	LOCATION	AADT
Eastbound	Waterman Ave. On-Ramp	10,556
	W. of Tippecanoe Ave. Off-Ramp	132,291
	Tippecanoe Ave. Off-Ramp	19,375
	E. of Tippecanoe Ave. Off-Ramp	112,916
	Tippecanoe Ave. On-Ramp	10,534
	E. of Tippecanoe Ave. On-Ramp	123,450
Westbound	W. of Mt. View Ave. On-Ramp	133,984
	Tippecanoe Ave. Off-Ramp	13,816
	W. of Tippecanoe Ave. Off-Ramp	120,169
	Tippecanoe Ave. On-Ramp	16,044
	W. of Tippecanoe Ave. On-Ramp	136,213

RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT

Truck percentage is same as above.

FUTURE YEAR (YEAR 2035) TRAFFIC DATA

DIRECTION	LOCATION	AADT
Eastbound	Waterman Ave. On-Ramp	13,000
	W. of Tippecanoe Ave. Off-Ramp	177,500
	Tippecanoe Ave. Off-Ramp	32,600
	E. of Tippecanoe Ave. Off-Ramp	144,900
	Tippecanoe Ave. On-Ramp	14,200
	E. of Tippecanoe Ave. On-Ramp	159,100
Westbound	W. of Mt. View Ave. On-Ramp	171,000
	Tippecanoe Ave. Off-Ramp	18,200
	W. of Tippecanoe Ave. Off-Ramp	152,800
	Tippecanoe Ave. On-Ramp	22,800
	W. of Tippecanoe Ave. On-Ramp	175,600

Describe potential traffic redistribution effects of congestion relief (impact on other facilities)

Based on the traffic analysis, the proposed project will not increase traffic volumes between the no build and build conditions. However, without the proposed improvements at Tippecanoe Ave/I-10 Interchange, traffic conditions are expected to worsen over time, resulting in increased commuting times, greater commuter frustration, higher travel costs and increased air pollution. In addition, poor levels of service are expected to result in adverse impacts on adjacent interchanges and the local street network as motorists seek less-congested alternate routes.

Comments/Explanation/Details (attach additional sheets as necessary)

Data references:

1. Modified Access Report, 08-SBd-10-PM 25.3/27.2, EA 44810, November 1, 2006.
2. Caltrans, Project Study Report(Project Development Support), August 2002.
3. Traffic Study for I-10 Tippecanoe Interchange-Year 2035 Forecasts, SANBAG, August 2005.

Additional Comments

Particulate Matter (PM₁₀ and PM_{2.5}) Analysis

The proposed project is within a nonattainment area for federal PM_{2.5} and PM₁₀ standards. Therefore, per 40 CFR Part 93, analyses are required for conformity purposes. However, the EPA does not require hot-spot analyses, qualitative or quantitative, for projects that are not listed in section 93.123(b)(1) as an air quality concern. The project does not qualify as a project of air quality concern (POAQC) for the following reasons:

- i. The proposed project is not a new or expanded highway project that would have a significant number or a significant increase in diesel vehicles. The existing and future traffic volumes along this segment of I-10 exceed the 125,000 ADT and the eight percent truck traffic POAQC thresholds for new construction. The proposed project would not increase the traffic volumes along this segment of I-10. This type of project improves local circulation by reducing traffic congestion by adding through and turn lanes and increasing the distance between ramp termini intersections and the adjacent local road intersections. Thus, it does not create a significant number or a significant increase in diesel vehicles.
- ii. The proposed project does not adversely affect intersections that are at level of service (LOS) D, E, or F with a significant number of diesel vehicles. The purpose of the proposed project is to improve the LOS at the ramp termini intersections and adjacent local road intersections. This project would not increase the traffic volumes along I-10 and the local roadways within the project vicinity.
- iii. The proposed project does not include the construction of a new bus or rail terminal.
- iv. The proposed project does not expand an existing bus or rail terminal.

Therefore, the proposed project meets the Clean Air Act requirements and 40 CFR 93.116 without any explicit hot-spot analysis. The proposed project would not create a new, or worsen an existing, PM₁₀ or PM_{2.5} violation.

RTIP ID# (required) RIV011211				
Project Description: <p>The Riverside County Transportation Commission proposes to construct a 6-level, 1100-space parking structure to better accommodate parking demand generated from the existing North Main Corona Metrolink Station. The structure will be connected to the existing Metrolink station via an upper level pedestrian bridge. The proposed parking structure would be constructed on a portion of the existing Metrolink surface parking lot located west of said station.</p>				
Type of Project (use Table 1 on instruction sheet) <p>The proposed project is not included among the project typed provided in Table 1. The project proposes construction of a 6-level, 1,100-space parking structure at an existing Metrolink Commuter Rail Station.</p>				
County Riverside	Narrative Location/Route & Postmiles: <p>The project site is located immediately adjacent to the North Main Corona Metrolink Station structure, at 200 E. Blaine Street, Corona, CA 92879.</p>			
Lead Agency: Riverside County Transportation Commission (RCTC)				
Contact Person Keith Cooper (Jones & Stokes) Ken Lobeck (RCTC)	Phone# (213) 627-5376 (951) 787-7927	Fax# (213) 627-6853 (951) 787-7920	Email kcooper@isanet.com	
Hot Spot Pollutant of Concern (check one or both) PM2.5 ✓ PM10 ✓				
Federal Action for which Project-Level PM Conformity is Needed (check appropriate box)				
✓ Categorical Exclusion (NEPA)	EA or Draft EIS	FONSI or Final EIS	PS&E or Construction	Other
Scheduled Date of Federal Action:				
Current Programming Dates as appropriate				
	PE/Environmental	ENG	ROW	CON
Start				
End				
Project Purpose and Need (Summary): (attach additional sheets as necessary) <p>The existing 560-space surface parking lot is inadequate to meet the existing parking demand at the North Main Corona Metrolink Station. The proposed 1,100-space parking structure would be constructed to meet existing and projected parking demands at said Metrolink Station. With the construction of the proposed parking structure, it is anticipated that lack of parking at the North Main Corona Station will no longer be a factor that hinders use of the existing Metrolink commuter rail station. The proposed project would provide safe, sufficient, and easily accessible parking for the riders of Metrolink commuter rail system.</p>				
Surrounding Land Use/Traffic Generators (especially effect on diesel traffic): <p>To the south is the Burlington Northern Santa Fe (BNSF) Railroad. The area beyond the railroad on the south is largely industrial, except for an existing park-and-ride parking lot. The parcels situated north and east of the subject site consist of industrial buildings, a fast food restaurant (northwest) and 2 single-family homes (north and northeast of the project site). It is important to note, however, that the proposed project would have no effect trip generation, or origin-destination patterns/routes associated with surrounding land uses.</p>				

<p>Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility</p> <p>N/A – proposed project is not a roadway facility.</p>
<p>RTP Horizon Year / Design Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility</p> <p>N/A – proposed project is not a roadway facility.</p>
<p>Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT</p> <p>N/A – proposed project is not an interchange or intersection facility.</p> <p>RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT</p> <p>N/A – proposed project is not an interchange or intersection facility.</p>
<p>Describe potential traffic redistribution effects of congestion relief (<i>impact on other facilities</i>)</p> <p>The proposed project (i.e., 1,100-space parking structure) is not a roadway, interchange, or intersection facility, and as such, would have no traffic redistribution effects.</p>
<p>Comments/Explanation/Details (<i>attach additional sheets as necessary</i>)</p> <p>As demonstrated above, on the basis of Transportation Conformity Guidance for Qualitative Hot-spot Analyses in PM_{2.5} and PM₁₀ Nonattainment and Maintenance Areas (page 25), this project is not a project of air quality concern under 40 CFR 93.123(b)(1)(I) and (ii).</p>

4.6 TCM UPDATE

Summary of Part Time HOV TCM Replacement

The purpose of this TCM replacement is to substitute a full time HOV Project on Route 60 in Moreno Valley with a Part Time HOV project. The conversion will be for a period of three years at which time it will revert to a full time HOV.

SCAG Review and Adoption. The replacement TCM will be presented to SCAG's Transportation and Communications Committee in the form of RTIP Amendment supported by emissions modeling and a conformity finding for its recommendation. The meetings will be publicly noticed. A 30-day public comment period and public hearing is included.

Interagency Consultation. Interagency Consultation is occurring at SCAG's publicly noticed Transportation Conformity Working Group meeting on November 28, 2006.

Equivalent Emission Reductions. The Part Time HOV Project virtually shows no significant difference in emissions from the Full Time HOV for ROG, NOX, CO and PM-10 as supported with emission model runs.

Similar Geographic Area. The replacement project in the City of Moreno Valley serves and provides accessibility in the same corridor as the original TCM.

Full Funding. The \$35,000 replacement project will be funded with Minor State Cash.

Time Frame. The replacement project (the part time HOV) will be completed and in operation by June 2007.

Legal Authority. Caltrans has full legal authority to construct and operate the replacement project.

Implementation Commitment. The replacement project will be added to the RTIP through a formal amendment to be approved by SCAG's Regional Council.

AQMP- Consistency Methodology. The methodology for analyzing emissions used AQMP-consistent assumptions and modeling techniques.

Latest Planning Assumptions. Technical analysis of the replacement projects was based on EMFAC 2002 emission factors version V2.2. The emissions estimation is for the year 2007.

Riverside County Transportation Control Measure Replacement

Presented to

Southern California Association of Governments

Submitted by

**Caltrans District 8
464 West Street
San Bernardino, Ca. 92401-1400**

November 16, 2006

Riverside County Transportation Control Measure Replacement

I Introduction

Caltrans plans to replace an existing Transportation Control Measure (TCM) with a new TCM project that provides equivalent or greater emissions reductions, while meeting all TCM substitution requirements specified in The Clean Air Act's section 176(c) transportation conformity provisions, including procedures to use in substituting or adding TCMs to approved SIPs.

The replacement will be discussed in this technical report:

SR-60 HOV. On an eight-mile segment of State Route 60 (SR 60) East of Junction for SR 60/ I-215 to Redlands Blvd., convert the existing full-time (24 hrs) High Occupancy Vehicle (HOV) lane to a part-time HOV lane in both directions.

The following report presents the criteria for TCM replacement that apply to the SR-60 HOV lane TCM. Further the report includes a description of the TCM project to be replaced, the need for replacement, the implication of the replacement on the Regional Transportation Improvement Program (RTIP), and a description of the proposed replacement project. The technical analysis for the replacement presents emissions data for the original and replacement TCM.

II TCM Replacement Procedures and Requirements

Replacement of SR-60 HOV lane with a new TCM must follow the substitution protocol specified in the Clean Air Act's section 176(c).

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, signed into law on August 10, 2005, revised the Clean Air Act's section 176(c) transportation conformity provisions, including procedures to use in substituting or adding TCMs to approved SIPs. The Clean Air Act as amended requires that the replacement TCM have the following:

- 176(c)(8)(A)(i) The substitute measures achieve equivalent or greater emissions reductions than the control measure to be replaced;
- 176(c)(8)(A)(ii) The substitute control measures are implemented in accordance with a schedule that is consistent with the schedule provided for the control measures in the implementation plan;
- 176(c)(8)(A)(iii) the substitute and additional control measures are accompanied with evidence of adequate personnel and funding and authority under State or local law to implement, monitor, and enforce the control measures;
- 176(c)(8)(A)(iv)(I) The substitute and additional control measures were developed through a collaborative process that included participation by representatives of all affected jurisdictions (including local air pollution control agencies, the State air pollution control agency, and State and local transportation agencies);
- 176(c)(8)(A)(iv)(II) The substitute and additional control measures were developed through a collaborative process that included consultation with the Administrator;
- 176(c)(8)(A)(iv)(III) The substitute and additional control measures were developed through a collaborative process that included reasonable public notice and opportunity for comments; and
- 176(c)(8)(A)(v) The metropolitan planning organization, State air pollution control agency, and the Administrator concur with the equivalency of the substitute or additional control measures.

The AQMP specifies procedures for replacing individual projects such as the SR-60 HOV lane:

- The CTCs and/or project sponsors shall notify SCAG when a TCM project cannot be delivered or will be significantly delayed.
- SCAG, CTC or project sponsor can propose a substitute measure.
- Prior to adopting an individual TCM substitution, the measure must have been subject to interagency consultation (via the Transportation Conformity Working Group), public review and comment period and emissions analysis.
- The replacement measure must be subject to the SCAG Regional Council review and adoption.
- Upon adoption by the Regional Council, the new measure will replace the previous measure and will be incorporated into the RTIP through and administrative amendment.
- Adoption by SCAG's Regional Council will rescind the previous TCM and apply the new measures.

Section III of this report includes a summary of the SR-60 HOV lane replacement TCM fit with each of the requirements established by the AQMP.

III SR-60 HOV Lane TCM Replacement

SR-60 HOV Lane Description. The proposed project is a TCM replacement project and is substituting, an already built TCM, the existing full-time HOV lane. The existing project is an approved TCM in the SIP, which opened to traffic in March 2004 as a full-time HOV operation.

Need for SR-60 HOV Lane Project Replacement. The 2006 traffic study prepared by Caltrans indicates that the full-time HOV lane is under-utilized during the off-peak hours by 40% to 50%. The purpose of converting the existing full-time HOV lane to part-time HOV lane is to relieve the congestion, increase the travel speed, and improve overall safety by lowering the traffic densities during off-peak hours on the mixed flow lanes.

Implication of SR-60 HOV Lane Project Replacement for 2006 RTIP.

The SR60 HOV lane project was included in the 2002 RTIP as follows:

RCTC 46360

In Riverside and Moreno Valley
On R60 from RT 215 to Redlands
Blvd. Add 2 HOV lanes.

At the conclusion of the interagency consultation process, Caltrans will request that SCAG amend the 2006 RTIP to designate the part-time HOV project as a TCM.

The replacement project will also subsequently be included in annual TCM Timely Implementation Reports that SCAG submits to FHWA to demonstrate that the projects are being implemented on time in fulfillment of the AQMP TCM requirements.

Recommended SR-60 HOV Lane Replacement Project

Caltrans proposes to convert the existing full-time HOV lane to a part-time HOV lane in both directions on an eight-mile segment of SR-60, East of junction of SR-60/I-215 (R12.2) to Redlands Boulevard (PM 20.4). The conversion will be for a period of three years at which time it will revert back to a full-time HOV lane. The hours of HOV operation will be from 6 A.M. to 9 A.M. and 3 P.M. to 6 P.M. in both directions of SR-60. The HOV lane will be open to use by single occupant vehicles (SOV) for the remaining hours of the day. A striped buffer between the HOV lane and the mixed-flow lanes will remain unchanged, and no striping modifications are proposed. The SOVs will be able to enter/exit the HOV lanes only at the existing designated ingress and egress locations. New signs will be installed informing motorists about the hours of HOV operation. An aggressive public awareness campaign will be launched to spread the word about the proposed change in operation. Refer to figures 1 and 2 for the project vicinity and location map.

Technical Analysis

This technical analysis documents the evidence that the SR-60 HOV lane project replacement TCM meets the substitution criteria spelled out in the Clean Air Act's section 176(c): equivalent emissions, similar geographic service area, similar implementation schedule, and demonstrated financial commitment to complete the project on time. The modeling procedure identified below was used for the SR-60 HOV lane replacement modeling.

Methodology for Analyzing Original Project and Replacement. The SR-60 HOV lane TCM and the proposed SR-60 part-time TCM Replacement project are compared in terms of difference in emissions. The emission factors for vehicle type is based on EMFAC2002, Version V2.2 and the emissions estimation are for the year 2007.

Emission Analysis. Based on the results of the modeling described above, Table 1 compares the existing HOV Operation and the proposed replacement TCM project emission profiles for year 2007. The SCAG's findings after model runs are as follows: *"Results from the base model run (with existing HOV) and the alternative model run (with HOV conversion) were compared and analyzed. Overall the HOV conversion had very little effect on corridor level traffic volumes. There are some diversions of SOVs to the converted HOV lane, but the overall freeway volume showed little change. Also, there are no significant changes in the freeway or HOV speeds between the base and alternative model run. Regional emissions showed insignificant differences between the base and alternative scenarios."*

Geographic Area/Service Area/Accessibility. The replacement project in the City of Moreno Valley serves and provides accessibility in the same corridor as the original TCM.

Implementation Schedule. The replacement project will be added to the RTIP through a formal amendment to be approved by SCAG's Regional Council.

Financial Commitment. The \$35,000 replacement project will be funded with Minor State Cash.

TABLE 1: 2007 Air Quality Emissions Comparison of Existing HOV and Part-time HOV Replacement TCM on SR-60 in Moreno Valley

(VMT in 1000s, emissions in tons/day)

Existing HOV Operation:	**VMT	***ROG	CO	NOx	PM10	SOx	Direct PM2.5 (Annual)
LDV+MDV	342,781	228.17	2,331.38	205.26	15.14	1.86	9.6
HDT	22,043	28.93	194.45	256.1	5.42	0.36	4.46
Others*	2,938	4.2	58	25.96	0.55	0.04	0.45
Sum	367,762	261.3	2,583.83	487.32	21.11	2.26	14.51
Part-time HOV Replacement:							
LDV+MDV	342,781	228.18	2,331.59	205.27	15.14	1.86	9.61
HDT	22,042	28.93	194.47	256.14	5.42	0.36	4.46
Others*	2,938	4.2	58	25.96	0.55	0.04	0.45
Sum	367,761	261.31	2,584.06	487.37	21.11	2.26	14.52

Note:

*Others – include Line Haul vehicles, motor homes, school buses, and urban buses.

**VMT X 1000

***Pollutants in tons – South Coast Air Basin. Emissions factors applied in the modeling were based on EMFAC2002, LDV (light duty vehicle); MDV (medium duty vehicle); HDV (heavy duty vehicle).

FIGURE 1: Project Vicinity Map

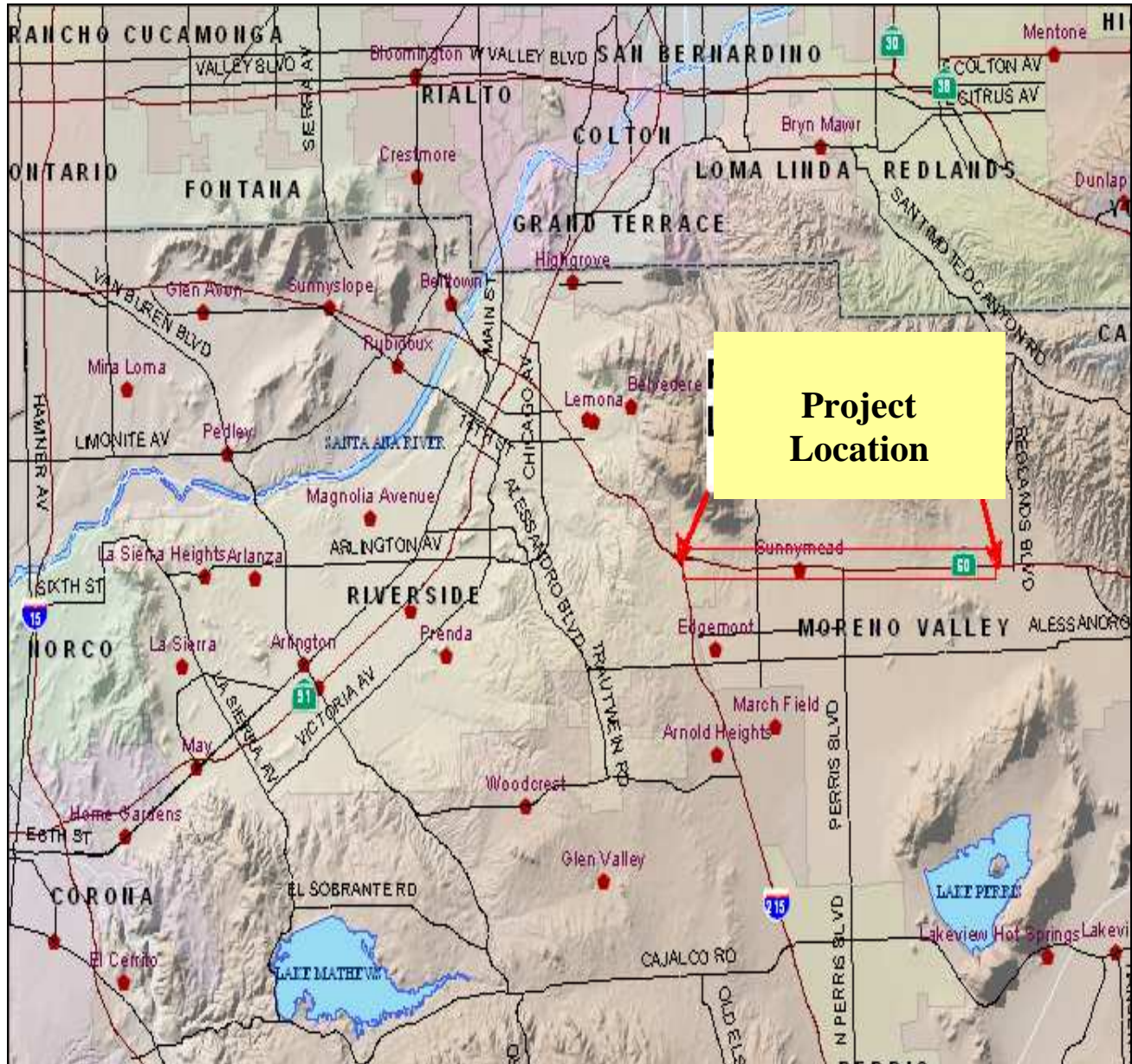
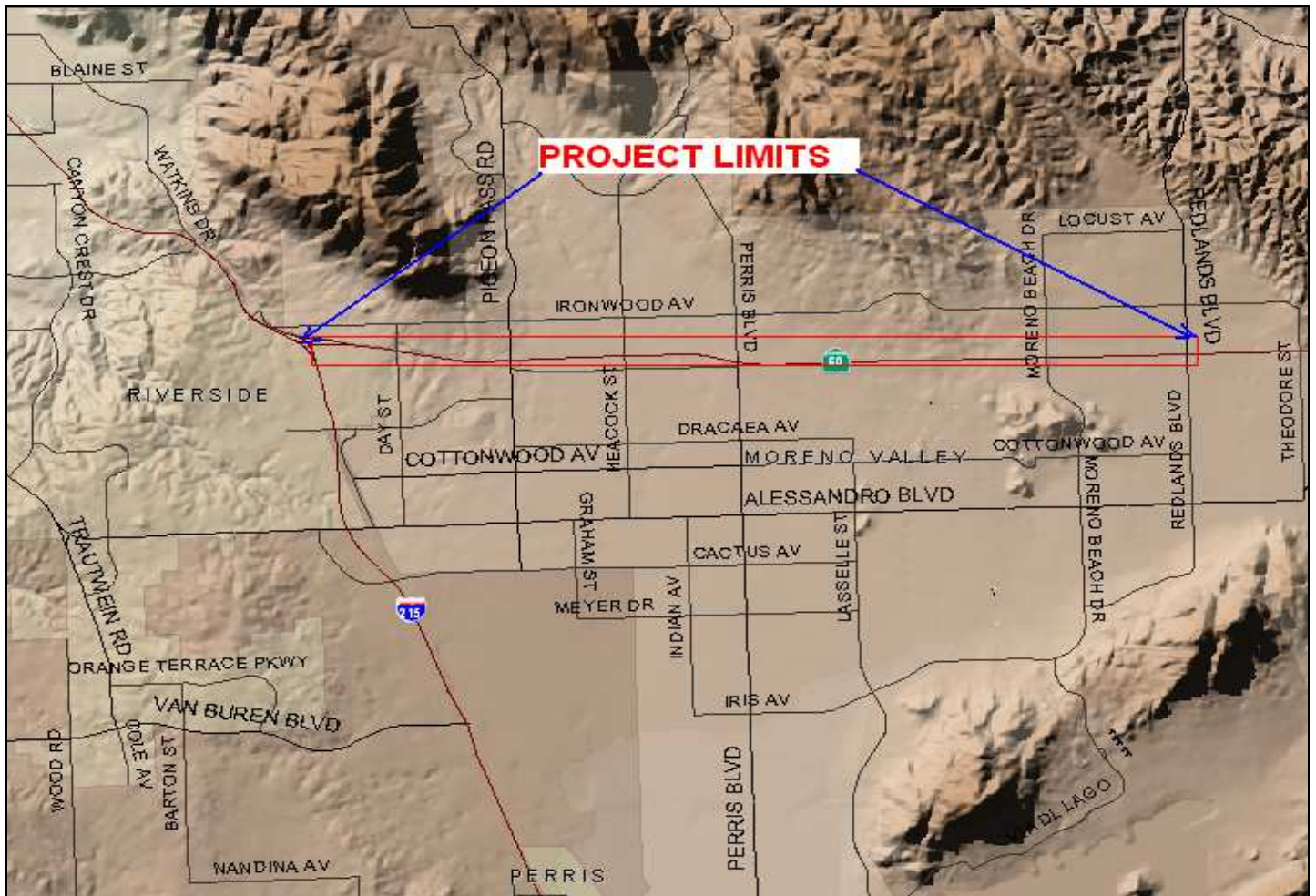


FIGURE 2: Project Location Map



Summary of SR-60 HOV Lane TCM Replacement

The purpose of this TCM replacement is to substitute an existing full-time HOV project on State Route 60 in Moreno Valley with a part-time HOV project. The conversion will be for a period of three years at which time it will revert back to a full-time HOV.

- **SCAG Review and Adoption.** The replacement TCM will be presented to SCAG's Transportation and Communications Committee in the form of a RTIP Amendment supported by emissions modeling and a conformity finding for its recommendation. The meetings will be publicly noticed. A 30-day public comment period and public hearing is included.
- **Interagency Consultation.** Interagency Consultation is occurring at SCAG's publicly noticed Transportation Conformity Working Group meeting on November 28, 2006.
- **Equivalent Emission Reductions.** The part-time HOV project virtually shows no significant difference in emissions from the existing full-time HOV for ROG, NO_x, CO AND PM₁₀ as supported with emission model runs.
- **Similar Geographic Area.** The replacement project in the City of Moreno Valley serves and provides accessibility in the same corridor as the original TCM.
- **Full Funding.** The \$35,000 replacement project will be funded with Minor State Cash.
- **Time Frame.** The replacement project (the part-time HOV) will be completed and in operation by June 2007.
- **Legal Authority.** Caltrans has full legal authority to construct and operate the replacement project.
- **Implementation Commitment.** The replacement project will be added to the RTIP through a formal amendment to be approved by SCAG's Regional Council.
- **AQMP – Consistency Methodology.** The methodology for analyzing emissions used AQMP – consistent assumptions and modeling techniques.
- **Latest Planning Assumptions.** Technical analysis of the replacement project was based on EMFAC2002 emission factors version V2.2. The emissions estimation is for the year 2007.

Transportation Control Measure (TCM) Under Review: Existing Full-time HOV Lane Project in South Coast Ozone and PM10 Nonattainment Areas (Riverside County)		Date of TCM Substitution Receipt by EPA: date	
Reviewers: Name		Date:	
Transportation Review Criteria From <i>Clean Air Act</i> section 176(c)		Is Criterion Satisfied? Y/N	Reference in SIP Document/ Comments
176(c)(8)(A)(i)	The substitute measures achieve equivalent or greater emissions reductions than the control measure to be replaced;	Y	Part-Time HOV lane project has been substituted for the existing full-time HOV lane on SR-60 in the City of Moreno Valley. The part-time HOV lane project provides equivalent reductions for ROG, NOx, CO, and PM10 as supported with emission model runs. The methodology for analyzing emissions used assumptions and modeling techniques consistent with those used in the SIP, with EMFAC2002.
176(c)(8)(A)(ii)	The substitute control measures are implemented in accordance with a schedule that is consistent with the schedule provided for control measures in the implementation plan;	Y	The replacement project (part-time HOV) will be completed and in operation by June 2007. The replacement project in the City of Moreno Valley serves and provides accessibility in the same corridor as the original TCM (full-time HOV).
176(c)(8)(A)(iii)	The substitute and additional control measures are accompanied with evidence of adequate personnel and funding and authority under State or local law to implement, monitor, and enforce the control measures;	Y	Caltrans has full legal authority to construct and operate the replacement project. The \$35,000 replacement project will be funded with Minor State Cash. The replacement project will be monitored annually through TCM Timely Implementation Reports that SCAG submits to FHWA.
176(c)(8)(A)(iv)(I)	The substitute and additional control measures were developed through a collaborative process that included participation by representatives of all affected jurisdictions (including local air pollution control agencies, the State air pollution control agency, and State and local transportation agencies);	Y	Interagency consultation occurred at SCAG's publicly noticed Transportation Conformity Working Group Meeting on November 28, 2006. Members of the Conformity Working Group include: EPA, FHWA, FTA, CARB, Caltrans, the South Coast Air Quality Management District, and the Riverside County Transportation Commission.
176(c)(8)(A)(iv)(II)	The substitute and additional control measures were developed through a collaborative process that included consultation with the Administrator;	Y	EPA was included in the area's Conformity Working Group process.
176(c)(8)(A)(iv)(III)	The substitute and additional control measures were developed through a collaborative process that included reasonable public notice and opportunity for comment; and	Y	The replacement TCM was presented to SCAG's Transportation and Communications Committee in the form of an RTIP Amendment supported by emissions modeling and a conformity finding for its recommendation on date , with SCAG Regional Council action on date . These meetings were publicly noticed. A 30-day public comment period and public hearing was included.
176(c)(8)(A)(v)	The metropolitan planning organization, State air pollution control agency, and the Administrator concur with the equivalency of the substitute or additional control measures.	Y	The replacement TCM was adopted, in the form of an RTIP Amendment, by SCAG's Regional Council on date . The California Air Resources Board concurred with the substitution.

1.0 Introduction

This study evaluates the potential air quality impacts associated with proposed conversion of full-time (24 hours) High Occupancy Vehicles (HOV) lane operation to part-time operation on State Route 60 (SR-60). The proposed project is located on the segment of SR-60 (PM R 12.2 to R 20.4) East of SR-60/215 Separation (Junction) in the City of Moreno Valley in Riverside County. The proposed project is a transportation Control Measure (TCM) replacement project and is substituting an already built TCM, existing HOV lane, which is in an approved State Implementation Plan (SIP). The proposed project will have more benefits compared to existing TCM by improving the operation of the facility within the corridor during the off peak periods. This study includes short description on the existing condition of the facility and the scope of proposed project. The study presents emissions analysis data prepared by Southern California Association of Governments (SCAG), a local Metropolitan Planning Organization (MPO) along with the traffic data from recent Traffic Study Report, and from the previously approved Project Report (PR, 1994) on Existing HOV lane project with ID # EA 463600. The recent “Traffic Study to Convert Full-time HOV Operation to Part-time on State Route 60 from PM R 12.2 –R20.4 in Riverside County, (January 2006)” for proposed project was prepared by California Department of Transportation (Caltrans) District 8. The emissions and traffic data have been utilized in this study for comparison and analysis purposes. The forecasted ADT traffic data (2015) from PR for the already constructed HOV project has been used to supplement the current and forecasted ADT for the facility which is not available at the time of preparation of this report. The construction cost for proposed project improvements is estimated at \$ 35,000.00 approximately. The project vicinity and location is shown on the maps. See figures 1 & 2 of the study.

1.1 Background

Caltrans plans to convert the existing full-time (24 hours) High Occupancy Vehicle (HOV) lane to part-time HOV operation in both directions on an eight miles segment of SR-60 East of Junction of SR-60/I-215 (R12.2) to Redlands Boulevard (PM 20.4). The HOV lane is an approved TCM in the SIP, which has already been constructed and opened to traffic in March 2004 as a full-time HOV operation (See Figure 3 showing HOV limits). Caltrans needs to seek approval from Federal Highway Administration (FHWA) for the proposed conversion project before it is implemented. To facilitate the process, a conference call was held on March 23, 2006 involving Federal Agencies, Environmental Protection Agency (EPA), Federal Highway Administration (FHWA), Southern California Association of Governments- MPO, and Caltrans, Head Quarter (HQ) and Caltrans District 8. During the conference it was determined that since the project is a State Implementation Plan (SIP) Transportation Control Measure (TCM), Caltrans needs to obtain concurrence from EPA for the proposed conversion. Caltrans is required to develop an emission analysis and coordinate with EPA to determine if a SIP revision and conformity determination is required. At Caltrans request, SCAG’s modeling staff performed a Model sensitivity run to test the mobility and air quality

impacts resulting from the proposed conversion of SR-60 full-time HOV to part-time operation to allow single occupant vehicle (SOV) use in the off peak period (mid-day and night time use only). The results of emissions analyses generated for criteria pollutants are shown in Table 1. The analyses were based on the model runs previously performed for Air Quality Management Plan (AQMP) for year 2007. The SCAG's findings after model runs are as follow: *"Results from the base model run (With existing HOV) and the alternative model run (with HOV conversion) were compared and analyzed. Overall the HOV conversion had very little effect on corridor level traffic volumes. There are some diversions of SOVs to the converted HOV lane, but the overall freeway volume showed little change. Also, there are no significant changes in the freeway or HOV speeds between the base and alternative model run. Regional emissions showed insignificant differences between the base and alternative scenarios."*

2.0 Project Description

The Segment of SR-60, within the project limits (see Figure 3), currently has 3 mixed flow lanes, 12 foot in width in each direction starting from east of 215/60 Junction (PM R12.2) and continues through Day Street. One of continuous mixed flow closer to the central median of the freeway converts into a 12-foot wide HOV lane in eastbound (EB) direction just before Fredrick Street Exit. This is the beginning point of the actual HOV lane, which then traverses over several miles and ends just before Redlands Boulevard exit with intervening ingress/ egress point at Perris Boulevard. Correspondingly a HOV lane also exits along with two mixed flow lanes in westbound (WB) direction of SR-60 within the same stretch of the freeway. Presently the full-time HOV Lane is separated from the #1 mixed flow lane by one foot striped buffer with designated ingress/egress locations in each direction.

The TCM replacement project proposes to convert the existing full-time (24 hours) HOV operation in each direction of SR-60 to part-time operation during peak hours. The morning (am) peak hours are from 6:00 to 9:00 and afternoon (pm) peak hours are from 3:00 to 6:00. For the remaining time (off-peak period) the HOV Lane would be open for use by the Single Occupant Vehicle (SOV) on an 8 miles segment of SR-60. The SOV would be able to enter/ exit the HOV lane only at the existing designated ingress and egress locations. The conversion project proposes to install new signs along the freeway within the project limit and would maintain the existing lanes configuration and buffer striping between HOV lane and mixed flow lanes. An aggressive public awareness campaign will be launched to spread the word to the motorist about the proposed change in the hours of HOV operation.

The alternative will allow single occupancy vehicles to use the HOV lane after the am and the pm peak hours. The Analysis of traffic data as given in the recent traffic analysis report for the proposed conversion of HOV lane shows that HOV lane is under-utilized by the motorist during the off peak period. Under the scope of work for the build alternative of the proposed project, new freeway signs will be installed informing motorist about the hours of HOV operation. The existing 1-foot wide striped buffer between the HOV lane and mixed-flow lanes will remain unchanged. No striping

FIGURE 1: Project Vicinity Map

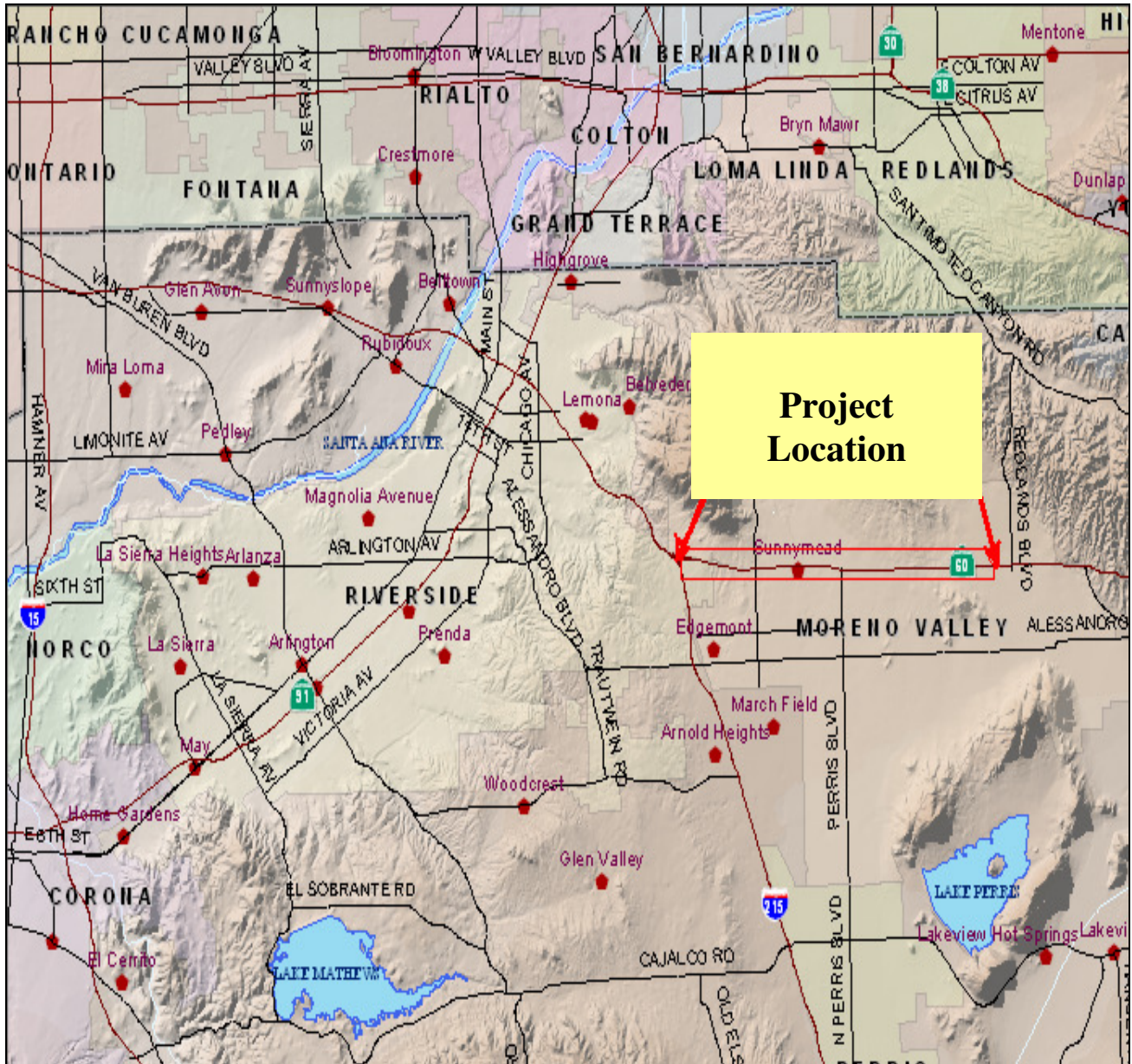
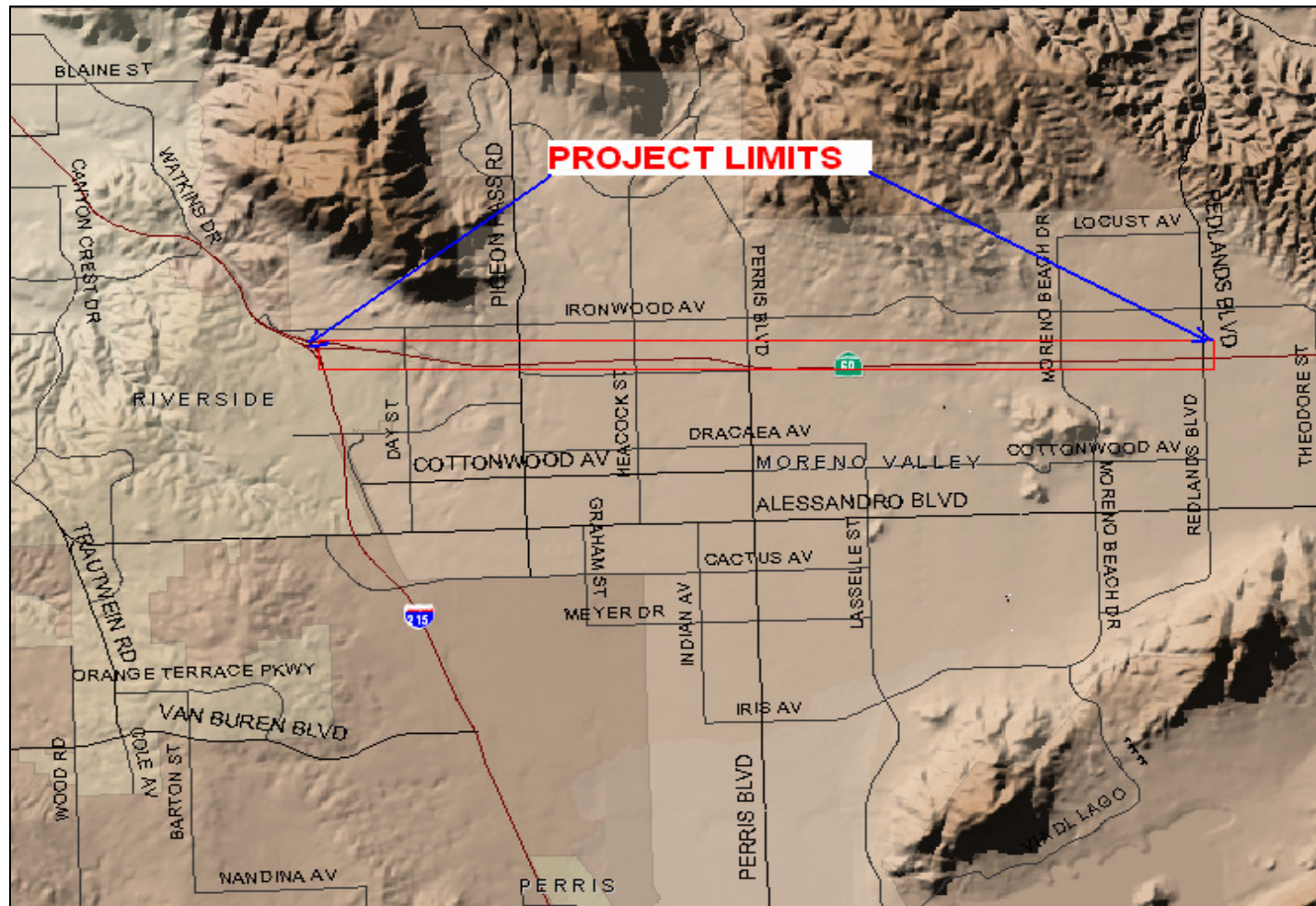


FIGURE 2: Project Location Map



modification to existing mixed flow lanes is planned. The benefits from the lane conversion are also discussed in the foregoing sections elsewhere of this study. Apart from increase in overall operational efficiency of the system by utilizing the unused capacity of the HOV lane by motorist, the increase in anticipated speed could help in reducing PM_{10} and $PM_{2.5}$ exhaust emissions from the diesel trucks engines which produce lesser $PM_{2.5}$ emissions and air toxics at higher speed.

2.1 Project Alternatives and comparisons

The following alternatives have been evaluated in this HOV conversion to HOV part-time operation study

- a) No build: Full- time HOV Operation (HOV+ Mixed Flow Lanes)
- b) Build: Converting existing HOV to Part-time operation (Three/All Mixed Flow Lanes)

2.1.1 No Build alternative

The 'No build' alternative is used to compare the relative impacts and benefits of the proposed project improvements. Under the No-Build alternative, no improvements are proposed to the existing roadway. The segment of SR-60 East Junction of SR-60/I-215 (PM R12.2) to Redlands Boulevard (PM R20.368) has one HOV and two mixed flow lanes in each direction. Each mixed flow lane including HOV lane is 12 foot wide in each direction. HOV lane starts from Fredrick/ Pigeon Pass (PM14.32) east of 60/215 Interchange(IC) and ends just before Redlands Boulevard in eastbound direction and vice versa. The traffic study performed in this segment of SR-60 concludes: The Off peak Volumes on HOV lane are 40% to 50% less than peak hour volumes and thus the capacity will remain under-utilized. The System Planning and Forecasting Department of the District 8 performed traffic forecasting using RIVSAN model to forecast the future traffic and LOS. The projected traffic peak hour volumes are presented in Figure 5 and 6. The Level of Service analyses were conducted for "No Build" alternative for the Years 2005 and 2015 and are tabulated in the Table 7 and 8. It can be seen that in general the mixed flow lanes during off peak hours operates at level of service of 'C'

Presented here are Tables 3 and 4 from the previous project study report (1994) on existing HOV, which tabulates the projected LOS and PHV and ADT for year 2015 for different segments on the mainline. It can be observed that the predicted level of Service is F3 to F0 and E for the segment of the mainline SR-60 between 60/215 junction and Fredrick Street/ Pigeon Pass Road. The maximum traffic peak hour volume and ADT, for year 1994/2015 for the segment between 60/215 interchange and Day Street Interchange, are 4100/7700 VPH (vehicles per hour) and 105,000/ 160,000 VPH respectively. In the recent Traffic Study (January 2006) performed by Caltrans District 8, the peak hour volumes were analyzed and are presented in Table 5 and 6. The PHV for

eastbound direction for year 2005/2015 were maximum at 2265+ 645 (Mixed flow Lane-[MFL] + HOV)/ 3268+806 (MFL + HOV) respectively. The recent Traffic Study (2006) on the segment of the SR-60 in Moreno Valley does not cover the traffic data for the segment between west of Fredrick Street and 60/215 Junction but includes traffic volume counts for the segment SR-60 east of Fredrick Street towards Redlands Boulevard. It could be noted that with the increasing demand from the commuter traffic and the population growth and commercial developments along the corridor, the No built alternative will not resolve traffic congestion on mixed flow lanes but congestion would worsen with time. The congestion on mixed flow lanes would not reduce until the outside widening is made to the facility in future in order for the traffic to move at a reasonable level of service. This alternative will not improve traffic flow or reduce congestion which otherwise would worsen with the growing traffic in the future. Increased congestion would then contribute more toward exhaust emissions from the vehicles exhaust and especially from diesel vehicles as this corridor is a major heavy trucks route.

2.1.2 Build Alternative: Part-time HOV operation Alternative:

The build alternative proposal is based on the findings of the recent traffic study for the segment of SR-60 in Moreno Valley. This alternative will allow single occupancy vehicles to use HOV lane after (6:00 to 9:00) A.M and (3:00 to 9:00) PM peak hours. The analysis of traffic data in the recent traffic analysis report for the proposed conversion of HOV lane show that HOV lanes is under-utilized by the motorist during off peak period. Under the scope of work for the build alternative of the proposed project, new freeway signs will be installed informing motorist about hours of HOV operation. No changes are proposed to the existing facility by adding extra lanes. The existing 1-foot wide striped buffer between the HOV lane and mixed-flow lanes will remain unchanged. No striping modification to existing mixed flow lanes is planned. The benefits from the lane conversion have already been discussed in the foregoing sections of this study. Apart from increase in overall operational efficiency of the system by utilizing the unused capacity of HOV lane by motorist, the increase in anticipated speed could help in reducing PM₁₀ and PM_{2.5} exhaust emissions from the diesel trucks engines which produce lesser PM_{2.5} emissions and air toxics at higher speed.

As can be observed in Table 3 from the HOV Report (1994) the projected level of service for year 2015 for existing facility ranges from F0 and F3 during the morning and afternoon peak periods for the freeway segment between 60/215 Interchange (IC) and Day Street in east bound direction in spite of the inside widening for HOV lanes will not cope with the demand of traffic for the year 2015. At that time outside widening would be necessary in order to move traffic at reasonable level of service.

For build alternative (all mixed flow lanes), the LOS analyses for years 2005 and 2015 are tabulated in the Tables 7 and 8. The analysis of LOS indicates general improvement in the level of service from 'C' to 'B' and 'D' to 'C' respectively with the proposed project.

The benefits from the lane conversion are also summarized and discussed in the conclusion section of the study. Apart from increase in overall operational efficiency of the system by utilizing the unused capacity of HOV lane by motorist, the anticipated increase in speed would help reduce PM₁₀ and PM_{2.5} exhaust emissions from the diesel trucks engines. This alternative would also help to reduce the congestion on mixed flow lanes during off peak period.

2.2 Purpose and Need

The purpose of converting the existing HOV lane to part-time operation is to ease up the congestion on the existing 2 mixed flow lanes during off peak hours by allowing SOVs to use of HOV lane and thus giving more flexibility and convenience to the traveling motorist and at the same time optimizing the use of existing highway capacity. The traffic analysis performed in the traffic study (January, 2006), prepared by Caltrans District 8 indicates that the HOV lane is under-utilized during off-peak hours ranging from 40% to 50% that of the peak hour operation. It is anticipated that the conversion plan may enhance the operational efficiency of the facility within the corridor and increase the traveling speed in general on mixed flow lanes during off-peak hours, and improve overall safety by lowering the traffic densities during off peak hour on mixed flow lanes. Further, during incidents and lane closures from construction activities the HOV lane could be used to move traffic to HOV lane on off peak hours and curtail delays. The convenience other wise is not available in full-time HOV operation mode. The conversion of HOV lane is an interim measure for 3 years period only. During the trial period Caltrans would evaluate the traffic and air consequences of the proposed conversion of HOV lanes. The study results that would be available later would help determine if the anticipated benefits from the proposed conversion to motorists in terms of convenience, mobility, safety and reduced congestion are achieved as planned. The measurable parameters to this effect would be, improvement in LOS of the facility, reduction in accidents rate, and the popularity of the part-time HOV operation policy with the motorists (Satisfaction Survey). Moreover, the review of monitoring data on pollutants concentrations at the end of the trial period would let Caltrans determine the anticipated improvement in the ambient air quality resulting from the possible reduction in the emissions of criteria pollutants. As mentioned earlier that moving traffic faster on mixed flow lanes during off-peak hours would results in lesser emissions of pollutants

2.3 Land Use

The traffic volumes on State Route 60 have steadily grown over the years as population has increased along the corridor of Route 60. When this section of State Route 60 was originally built in the early 60s, the area was a rural community. As a result the freeway, interchanges and ramps were designed for low volume traffic conditions. The situation today has changed due to tremendous population growth in the City of Moreno Valley. This increase in traffic volume is straining the system and has congested some of the freeway segments and interchanges during the peak periods. The City of Moreno Valley has grown at a rate faster than the expected rate primarily due to the availability of economic housing in the area. According to the data published by the City's Department

of economic Development, 70% of the City's workers travel to jobs outside the City of Moreno Valley. State Route 60 through Moreno Valley has seen a change in land use over the years. The present land use consists of predominantly low-density residential and agricultural uses with some commercial use. The section between 60/215-interchange and Perris Boulevard has seen changes in land-use with a number of commercial developments opening business. The most significant of these developments in addition of Moreno Valley Mall, which is major traffic generator. The traffic originating in Moreno Valley is typically commuter traffic involved in intra regional travel.

2.4 Existing facility

The Segment of SR-60, within the project limits (see Figure 3), starting from East Junction of SR-60/I-215 (PM R12.2) currently has 12 foot wide three mixed flow lanes in each direction and continues through Day Street just before the beginning of HOV lane. One of the three continuous mixed flow lane closer to the central median of the freeway converts into a 12-foot wide HOV lane in Eastbound (EB) direction just before the Fredrick Street Exit/ Pigeon Pass (PM14.32). This is beginning point of the actual HOV lane, which runs over several miles and ends just before Redlands Boulevard exit (20.4) with intervening ingress/ egress point at Perris Boulevard. Correspondingly a HOV lane also exists along with two mixed flow lanes in westbound (WB) direction of SR-60 within the same stretch of the Freeway. Presently the Full-time HOV Lane is separated from the #1 mixed flow lane by one foot striped buffer with designated ingress/egress locations in each direction.

The design speed of the freeway facility is 65 mph. Auxiliary lane has recently been added between Fredrick Street and Day Street for both eastbound and westbound traffic. Auxiliary lanes EB/WB between Nason Street and Moreno Beach Drive is proposed and is currently under planning and design stage (EA #323010). A typical cross-sections of existing Route 60 (see Figure 4) and also the proposed cross section of the segment of SR-60 in the area for the proposed auxiliary lane project is provided in the appendix 'A' showing existing conditions of the facility and the improvements from the proposed project (EA #323010)

Historically, the State Route 60 was built in early 1960's within the project limits in Moreno Valley (formerly known as Sunny mead) as freeway with interchanges and ramps for low traffic volumes. The State Route 60 (SR-60) is an east-west principal arterial. The westerly limit of the route is near the junction of Interstate 5 (I-5) and Interstate 10 (I-10) in the City of Los Angeles and the easterly limits is at the junction of I-10 in the City of Beaumont, California. The total length of the SR-60 is 70.4 miles, out of which 40.5 miles is within District 8. It serves the counties of Los Angeles, San Bernardino and Riverside and traverses through the cities of Los Angeles, Monterey Park, South El Monte, Industry, La Puente, Walnut, Diamond Bar, Pamon, Chino, Ontario, Riverside, Moreno Valley and Beaumont.

SR-60 is functionally classified as an urban principal arterial and is the part of the California Freeway and Expressway System. It is included in the national network for

FIGURE 3: Project Limits

FIGURE 4: Existing SR-60 Cross-Sections

Federal Surface Transportation Assistance Act (STAA) for oversized trucks. The ultimate Route 60 will be a 10-lane freeway between Los Angeles/ San Bernardino County line to 60/91/215 interchange and an 8-lane freeway between 60/215 interchange and 60/10 junction in Beaumont. HOV lanes have also been included for the entire length of State Route 60 in the Regional Transportation Improvement Plan, Southern California Association of Governments (SCAG) Regional Mobility Plan and the District 8 Long Range Operation Plan (LROP)

State Route 60 spans through fairly level terrain between Los Angeles/San Bernardino County line to the 60/91/215 interchange in the City of Riverside, however the terrain turns to rolling between 60/91/215 interchange and its easterly limits in the City of Beaumont. The existing lane configuration of the facility with the project Limits starting from East of 215/60 separation to Redlands Boulevard comprises of two mixed flow lanes and one HOV lane in each direction. The section between Post Mile 22.1 and 30.5 in Riverside County is classified as four lanes expressway. The inside and outside shoulders are 5 and 8 foot wide respectively and is constant throughout the district. State Route 60 overlaps with interstate 215 for a five-mile long section between 60/215/91 interchange and 60/215 interchange. The lane configuration for this section consists of a six-lane freeway with five foot wide inside shoulder and an eight-foot wide outside shoulder.

3.0 Hours of Operation policy

There are only two basic hours of operation policies for HOV Facility: “full-time” and “peak period only.” Both policies are currently being used in California. The peak period only policy provides preferential treatment of HOV’s only during the limited periods of peak demand, which occurs during the morning and evening commutes hours. The HOV lane is opened to all traffic and operates as an additional mixed-flow lane outside of the peak traffic period and weekends. The existing HOV facility on SR-60 currently operates on “full-time” basis and these hours were established prior to the implementation of the project and opening the existing HOV facility to the traffic in the year 2004. In reaching a decision on the option of the full-time operation policy, consideration was given to these parameters, anticipated rider ship (ride sharing), ease of enforcement, elimination confusion to the motorist and regional traffic characteristics in reaching the full-time operation policy.

The basis for selecting one of the two available options (“peak period policy” or “full time policy”) on hours of operation policy for HOV lane, is elaborated as under: Besides the local politics which could complicate the selection of the policy, as a matter of practice the traffic pattern, regional demand and rider ship trends both during peak and off-peak hours are essentially to be analyzed before the hours of operation policy is adopted for the HOV lane facility. The objective of the analysis and evaluation of traffic characteristics is to determine the peak-hours periods and congestion periods in each direction of the Route. If high traffic volumes and breakdown traffic condition (LOS F) and severe congestion occurs or lasts for extended period of time, then “Full-time

operation is recommended for the facility. How well the HOV hour of operation policies are applied judiciously depends on the traffic characteristics (volumes) and pattern, regional future demand of traffic. If the traffic is heavy in one direction it is beneficial to operate the lane as full-time HOV in that direction. In case of a scenario where rider ship is low on HOV lane during certain off peak hours period of the day then “part-time HOV operation” is an option of choice. This option utilizes the under-used capacity of HOV lane by SOVs. The California Department of Transportation’s *High Occupancy Vehicle (HOV) Guidelines for planning, Design, and Operation* States that “If future car pool lanes are to be built, whether 24 –hours (full-time) or peak periods only, the operating hours of the HOV facility should be consistent throughout the region.” This is important to reduce the motorist confusion and to allow a system-wide network of HOV facilities to function together. The hour of operation policies criteria and other aspect are detailed in the Caltrans recent traffic study report for Route-60. See Appendix, ‘A’ which provides excerpt from the traffic study report.

4.0 Environmental Setting

The *Clean Air Act section 176(c)* requires that federally supported highway and transit project activities are consistent with state air quality goals, found in the *state implementation plan* (SIP). The process to ensure this consistency is called Transportation Conformity. Conformity to the SIP means that transportation activities will not cause new violations of the *national ambient air quality standards* (NAAQS or “standards”), worsen existing violations of the standard, or delay timely attainment of the relevant standard. Transportation conformity is required for federal supported transportation projects in areas that have been designated by the U.S. Environmental Protection Agency (EPA) as not meeting a NAAQS. These areas are called *non-attainment areas* if they currently do not meet air quality standards or *maintenance areas* if they have previously violated air quality standards, but currently meet them and have an approved *Clean Air Act section 175A* maintenance plan. The project is located in the South Coast Air Basin (SCAB). The U.S. Environmental Protection Agency (EPA) classifies this air basin as non-attainment for federal PM_{2.5} ambient standards. This project is a STAA truck route and increases the number of diesel trucks that would utilize the facility. The *Surface Transportation Assistance Act (STAA)* of 1982 allows large trucks to operate on the Interstate and certain primary routes called collectively the National Network. These trucks, referred to as STAA trucks, are longer than California legal trucks. As a result, STAA trucks have a larger turning radius than most local roads can accommodate. It was determined that this is a project of air quality concern, a federal approval or authorization is required subsequent to April 5, 2006, and thus a hot spot analysis is required. EPA amended the Transportation Conformity rule on March 10, 2006, requiring a hot-spot analysis to determine project-level conformity in PM_{2.5} and PM₁₀ non-attainment and Maintenance areas. A hot spot analysis is an assessment of localized emissions impacts from a proposed transportation project and is only required for “projects of air quality concern.” The March 10, 2006 rule provides examples of projects of air quality concern. The PM_{2.5} and PM₁₀ hot-spot requirements in the final rule became effective April 5, 2006. Project level conformity determinations are required pursuant to *40 CFR §93.116. And §93.123.*

Mobile Sources Air Toxics (MSAT)

The federal Clean Air Act (CAA) identified 188 pollutants as being air toxics, which are termed as hazardous air pollutants (HAP). From this list, EPA identified a group of 21 as MSATs in its final rule, "Control of Emissions of Hazardous Air Pollutants from Mobile Sources" (66 FR 17235) in March 2001. From this list of 21 Mobile Sources Air Toxics (MAST), EPA has identified six MASTs, benzene, formaldehyde, acetaldehyde, diesel particulate matter/ diesel exhaust organic gasses, acrolein, and 1,3-butadiene termed as priority MSATs. To address emissions of MSATs, EPA has issued a number of regulations that will drastically decrease MSATs over the next 20 years. Even after accounting for a 64 percent increase in vehicle miles traveled (VMT), FHWA predicts MSAT will decline in the range of 57 percent to 87 percent, from 2000 to 2020 through cleaner fuels and cleaner engines. On February 3, 2006, FHWA released interim guidance on when and how to analyze (MAST) in the national Environmental policy Act (NEPA) process for highway projects. There are three levels (categories) of analysis for the transportation project: (1) exempt projects or projects with no meaningful potential MSAT effects; (2) projects with low potential MSAT effects; and (3) project with higher potential MSAT effects.

Under Category 1 (exempt projects), three types of projects are included; (1) projects qualifying as a categorical exclusion under 23 CFR 771.117(c), (2) projects exempt under the CAA conformity rule 40 CFR, and (3) other project with no meaning impacts on traffic volumes or vehicle mix.

The proposed project fall under category 1 and other project with no meaningful impacts on traffic volumes or vehicle mix. As could be seen that the proposed project would not increase traffic volumes or traffic mix. No additional trips would be generated by the implementation of the project. The project is simply installing traffic signs on the freeway and would in no way effect traffic volumes. Thus the project would qualify as an exemption under category (1) of Interim Guidance. The percentage of diesel truck in the vehicle mix as determined in the recent traffic analysis report is 10% and would remain the same. As such the project will generate minimal air quality impacts for MSAT, so the project is screened out and is exempt from MSAT analysis as required under NEPA process for highways.

4.1 Emissions Analysis: Comparison of Build and No build Alternatives

The Table 1 below presents the emissions per tons per day for criteria pollutants estimated from mobile sources for existing condition (existing full-time HOV and two mixed flow lanes) and for proposed project (converting to part-time HOV operation and 2 mixed flow lanes) on the freeway within project the limits. The emission factors for vehicle type is based on EMFAC2002, Version V2.2 and the emissions estimation are for the year 2007. As can be seen by comparing the results of emissions analyses of the

two alternatives there appears virtually no significant difference in emissions between existing HOV (No build condition) and HOV part-time operation (build condition).

**TABLE 1: Air Quality Emission Analysis SR-60 Part-time HOV. Operation
Moreno Valley for Year 2007. South Coast air Basin UMT and Summer emissions.**
(VMTin 1000s, emissions in tons/day)

	<u>**VMT</u>	<u>***ROG</u>	<u>CO</u>	<u>Knox</u>	<u>PM10</u>	<u>SOX</u>	<u>Direct PM2.5(Annual)</u>
Existing HOV Operation:							
LDV+MDV	342,781	228.17	2,331.38	205.26	15.14	1.86	9.60
HDT	22,043	28.93	194.45	256.10	5.42	0.36	4.46
Others*	2,938	4.20	58.00	25.96	0.55	0.04	0.45
Sum	367,762	261.30	2,583.83	487.32	21.11	2.26	14.51
After Converting to Part Time HOV Operation:							
LDV+MDV	342,781	228.18	2,331.59	205.27	15.14	1.86	9.61
HDT	22,042	28.93	194.47	256.14	5.42	0.36	4.46
Others*	2,938	4.20	58.00	25.96	0.55	0.04	0.45
Sum	367,761	261.31	2,584.06	487.37	21.11	2.26	14.52

Note:

* "Others" include Line Haul vehicle, motor home, school bus, and urban bus

** VMT X 1000

*** Pollutants in tons - South Coast Air Basin. Emissions factors applied in the modeling based on EMFAC2002, LDY, light duty vehicle; MDV, medium duty vehicle; HDT, heavy duty vehicle

4.2 Monitored Air Quality and Impacts

The California Air Resources Board (CARB) maintains monitoring throughout the South Coast Air Basin (SCAB) to monitor concentration of the criteria pollutants in the air. Pursuant to the federal Clean Air Act (CAA) of 1970, United States EPA established National Ambient Air Quality Standards (NAAQS) for six criteria pollutants: O₃; CO; PM₁₀; NO₂ Sulfur dioxide (SO₂) and Lead (Pb). In 1997 EPA promulgated new federal standards for a seventh pollutant PM_{2.5} and established 8 hour standard.

Designation of Criteria pollutants for the SCAB

Criteria Pollutant	Federal	State
Carbon Monoxide	Serious non-attainment	Attainment
PM10	Serious non-attainment	Non-attainment
PM2.5	Non-attainment	Non-attainment
Ozone (8-hr)	Severe-17 non-attainment	Not designated
NO2	Attainment-Maintenance	Attainment

Source for State Information: California Air Resources Board

<http://www.arb.ca.gov/desig/adm/adm.htm>.

Source for Federal Information: U.S. EPA <http://www.epa.gov/air/oagps/greenbk/index.html> last accessed 7/1/05

The data from the monitoring stations (Palm Springs- Fire Station, Riverside-Magnolia, Riverside –Rubidoux) in Riverside County are presented in the Appendix ‘B’ for PM_{2.5} and PM₁₀. The current data show a declining trend in the National 3- year average for the criteria pollutant (PM_{2.5}) in the project vicinity indicating that the ambient air quality would improve further as a result of EPA stricter regulations to produce cleaner fuel and cleaner vehicle engines. The Table above shows the designation of the criteria pollutants within the SCAB region. Attainment means the pollutant is in compliance to National Ambient Air Quality Standards (NAAQS) as well as State Air Quality Standards. Non- attainment refers to the status of the criteria pollutants ambient concentration in the air and not meeting the NAAQS. Western Riverside portion of SCAB, although in compliance with federal standard for Carbon Monoxide for last three years but is still classified as serious non-attainment. The South Coast Air Quality Management District (SCAQMD) and California air Resource Board (CARB) has Carbon monoxide attainment and maintenance plan for the area and the request has been submitted for re-designation, which is pending approval from EPA. The area is classified as serious non-attainment for PM-10 national standards. SCAB region, which includes portion of western Riverside County, is as whole as non-attainment for and PM 2.5. Portion of Riverside, and all Orange and urban area of Los Angeles counties are classified as severe-17 non-attainment for National Ozone 8-hour standard. SCAB region is classified as attainment and maintenance area for NO2 standards (National). The existing HOV Full-time (TMC) emissions estimates were included as a part of regional emissions analysis in the 2002 RTIP which was federally approved and conforming to 2002 RTP and emissions budget in the approved SIP. The regional air quality need not be assessed for potential hot spot impacts (Local air quality) on sensitive receptors. The reason being that the project is not anticipated to generated addition trips of commercial or commuter vehicles as a result of the proposed project. There would be no change in the VMT traveled. The current traffic data from recent Traffic Analysis Study (2006) for the Part-time HOV operation show percent of diesel trucks as 10 % of ADT. No increase in VMT or increase in diesel trucks volume as a result of the proposed project is anticipated. Besides the project will not add lanes to increase facility capacity beyond the edge of traveled-way, which could move roadway closer to the sensitive receptors. Considering the above parameters, no impacts on the local air quality is anticipated such as causing new violations, or worsening the existing violations or delay timely of attainment of NAAQS would occur. As the existing full-time HOV project is part of 2002 RTP the project emissions has been accounted for in the emissions budget and approved for conformity by FHWA, so regional air quality is not impacted or worsened by operational emissions with the implementation of the replacement TCM. With the operational improvement of the segment, the project will further help improve the air quality both at regional as well at project level.

5.0 Level of Service (LOS)

Level of Service (LOS) is a qualitative measure describing operational conditions within a traffic stream. For uninterrupted flow conditions, like freeways, the level of service is described in terms of such factors as speed and travel time, freedom to maneuver, traffic interruption, comfort, convenience and safety. Level of service ranges from A through F,

with LOS A describing free flow conditions and LOS 'F' indicates "breakdown", "stop and go" or forced flow conditions. Caltrans Traffic Operations Head quarters have introduced descriptors for LOS 'F' based on the number of hours LOS 'F' lasts, i.e., if LOS F last between 15 minutes and one hour, the LOS is designated as F0, if LOS 'F' lasts between one hour to two hour, the LOS is labeled as F1, for LOS 'F' lasting between two hour and three hour, the LOS is termed as F2 and for LOS 'F' lasting longer than three hours, the LOS is called as F3. Table 2 below shows the relationship of the level of service to the traffic flow and operating speed.

TABLE 2: Relationship of Level of Service to Operating Speed and Congestion

LOS	FLOW DESCRIPTION	OPERATING SPEED	CONGESTION
A	Free flow	≥ 60 mph	
B	Stable, unconstrained	≥ 57 mph	
C	Stable, interference	≥ 54 mph	
D	Stable but severely restricted	≥ 46 mph	
E	Unstable	≥ 30 mph	
F	Forced or breakdown	Highly variable	
F0			15 min to 1 Hr.
F1			1 Hr. to 2 Hr.
F2			2 Hr. to 3 Hr.
F3			More than 3 Hr.

(Adopted from "High Occupancy Vehicle (HOV) Report, For Route 60 Between Junction 60/215 And Redlands Boulevard, in Riverside County. Prepared by Caltrans District 08, San Bernardino, California, May 1994")

5.1 Existing and Projected Level of Service (LOS) and ADT

For the purpose of this study information on traffic data, Level of Service (LOS), PHV, has been used from recent Traffic Study (January 2006) for the proposed project prepared by Operation Division, Caltrans District 8 and e-copy of the portion of the traffic study as furnished by Thomas Ainsworth(Caltrans). Traffic data in the Tables 4 to 8 show the traffic volumes ADT, PHV and LOS during the am and the pm hours for year 2005 and 2015 on east and west bound direction of the segment of the freeway within the project limits. The data provided in the Traffic Study does not show total ADT but assumes the percentages of diesel truck as 10% in the peak hourly traffic volumes. The data on traffic volumes included in the recent Traffic Study (January 2006) were collected from traffic count stations located on eastbound SR-60 east of Day Street and westbound traffic volumes were obtained from Pigeon Pass Road traffic count station. No reason for selecting this location for traffic counts stations location are given in the traffic study. It cannot be said that this is the location where the highest traffic congestion and delays occurs in each direction of SR-60 segment. It is expected that the highest volume may occur between east of 215/60 junction and DayStreet and traffic volume would taper off to a minimum at Redlands Boulevard. This traffic pattern has been detected and established in the project report (1994) for existing HOV facility. The

project report (EA 08-463600, 1994) for the existing HOV (TCM) show existing and projected traffic volumes for various segment of the facility (see Table 4). The highest existing mainline ADT of 105,000 occurred between the Route 60/215 Interchange and the Day Street Interchange while the lowest ADT of 33,400 occurred between Redlands Boulevard and Moreno Beach drive. The projected highest and lowest ADT of 160,000 and 94,000 were forecasted for the same two segments by the year 2015. A 60/40 directional split of traffic occurs during the peak periods with the larger volumes traveling westbound in the AM and eastbound in the PM. Since the Route 60 is included in the National Network for Federal Surface Transportation Assistance Act (STAA) for oversized trucks, it attracts high truck volumes. The previous PR (1994) analyzed the composition of truck traffic in the traffic stream within the project limits and stood at 11%. Traffic. The current year (2006) traffic volumes (ADT) between these locations on mainline is not available in the recent Traffic analysis study. The recent Traffic analysis gives existing truck percentage in the traffic stream as 10%. Due to construction zone on 91/215/60 interchange, it appears that the traffic counts for existing condition are less than what would have been if there were no construction activities. That Construction zones generally divert some traffic on to local streets

Level of service analyses for existing traffic conditions for the segment mainline was performed for both the A.M. and P.M. Peak periods in each direction. The level of service for freeway segment during peak periods is presented in the Tables 7 and 8 for both alternatives for year 2005 and 2015. As seen from the Tables 7, based on the mainline traffic in both during the A.M and P.M peak period for the year 2005 for No build alternative (HOV+ all mixed flow lanes-MFL), the facility operates under stable conditions with the LOS ranging between 'B' and 'C' from Redlands Boulevard and 215/60 Junction. For Build Alternative (all mixed flow lanes, off peak hour) for the year 2005, the facility operates at the LOS is 'B'. For the Year 2015 the Projected Level of Service (LOS) for Mainline, No build alternative (HOV+ All Mixed Lanes) Level of Service (LOS) ranges from 'B' to 'E' with mostly LOS of C to D except for Build alternative (HOV + MFL) westbound traffic at period 3:00 PM peak when the projected LOS is E (unstable condition). For the projected year 2015, the LOS for the build alternative (Three/all Mixed Flow, Off –Peak) ranges from 'B' to 'C' and stays at LOS 'C' most of the time during the day.

6.0 TRAFFIC DATA: Current and Forecasted Peak Hour Volumes (PHV) and Level of Service (LOS) and Average Daily Traffic (ADT)

The following traffic information on LOS, PHV and ADT has been obtained from the recent traffic study (2006) and previous traffic study on the existing HOV lane and Project Report (1994, EA 463600) on State Route 60. In the recent Traffic Study on the segment of the SR-60 between East of 60/I-215 Junction and Redlands Boulevard, the eastbound traffic volume counts on SR-60 were collected from the count station located just east of Day Street and the westbound volumes were recorded from traffic count station located just west of Pigeon Pass Road.

TABLE 3: Level of Service (LOS) of HOV, No Build

FREEWAY SEGMENT	LEVEL OF SERVICE			
	EASTBOUND		WESTBOUND	
	AM-PEAK	PM-PEAK	AM-PEAK	PM-PEAK
BETWEEN 60/215 IC AND DAY STREET	F0	F3	F3	F0
BETWEEN DAY ST AND FREDRICK ST	E	F3	F2	E
BETWEEN FREDRICK ST AND HEACOCK AVE	D	F1	F1	D
BETWEEN HEACOCK AVE AND PERRIS BLVD	C	F0	F0	C
BETWEEN PERRIS BLVD AND NASON ST	C	E	D	C
BETWEEN NASON ST AND MORENO BEACH DR	C	D	D	C
BETWEEN MORENO BEACH DR AND REDLANDS BLVD	C	D	D	C

Table Adopted from "High Occupancy Vehicle (HOV) Report For State Route 60 Between East Junction 60/215 and Redlands Boulevard, May 1994.

TABLE 4: SR-60 Peak Hour Volumes and ADT for year 1994 and 2015

CO-ROUTE	PM	PHV		ADT	
		PRESENT	2015	PRESENT	2015
Riv-60	R12.2/13.335	4100	7700	105000	160000
Riv-60	13.335/14.352	4050	7350	101000	152000
Riv-60	14.352/15.366	3150	6200	75000	128000
Riv-60	15.366/15.853	2500	5500	30000	112000
Riv-60	15.853/16.379	1600	4900	39000	98000
Riv-60	16.379/18.368	1450	4650	37800	100000
Riv-60	18.368/20.400	1350	4300	33400	94000

Adopted from the Project Report for HOV lane on Route60 Between East Junction 60/215 and Redlands Boulevard – (R12.2/R20.4 EA: 463600, prepared by Caltrans and approved on 7-11-1994

Table 5: EXISTING (2005) PEAK-HOUR VOLUMES

(Table adopted from Traffic study on proposed HOV conversion, January 2006)

Time	EAST BOUND				WEST BOUND			
	AM Peak-Hour		PM Peak-Hour		AM Peak-Hour		PM Peak-Hour	
	Mixed flow	HOV	Mixed flow	HOV	Mixed flow	HOV	Mixed flow	HOV
	(Vph)	(Vph)	(Vph)	(Vph)	(Vph)	(Vph)	(Vph)	(Vph)
5:00	1508	596			2409	641		
6:00	2049	721			2284	756		
7:00	2258	723			2088	758		
8:00	2265	645			2063	676		
9:00	1939	629			2210	667		
10:00	1647	644			2194	688		
11:00	1857	649			2324	701		
12:00			1907	670			2354	728
13:00			2033	774			2409	840
14:00			2128	916			2487	983
15:00			2470	1107			2641	1169
16:00			2472	1206			2539	1256
17:00			2538	1195			2550	1260
18:00			2268	1032			2153	1101
19:00			2047	760			1520	821

Table 6: PROJECT (2015) PEAK-HOUR VOLUMES*

(Table adopted from Traffic study on proposed HOV conversion, January 2006)

	EAST BOUND				WEST BOUND			
Time	AM Peak-Hour		PM Peak-Hour		AM Peak-Hour		PM Peak-Hour	
	Mixed flow	HOV	Mixed flow	HOV	Mixed flow	HOV	Mixed flow	HOV
	(Vph)	(Vph)	(Vph)	(Vph)	(Vph)	(Vph)	(Vph)	(Vph)
5:00	2201	745			3469	801		
6:00	2977	901			3311	945		
7:00	3270	904			3037	948		
8:00	3268	806			2990	845		
9:00	2809	786			3194	834		
10:00	2402	805			3175	860		
11:00	2697	811			3359	876		
12:00			2770	838			3405	910
13:00			2962	968			3499	1050
14:00			3167	1145			3509	1229
15:00			3624	1384			3873	1461
16:00			3642	1508			3743	1570
17:00			3732	1494			3759	1575
18:00			3330	1290			3179	1376
19:00			2980	950			2251	1026

Project use 4% annually increase per year

Table adopted from Traffic study on proposed HOV conversion, January 2006

**TABLE 7: ALL MIXED FLOW LANES LEVEL OF SERVICE (LOS)
YEAR 2005**

Time	HOV + Mixed Flow Lanes				All Mixed Flow Lane	
	AM Peak-Hour		PM Peak-Hour		Off Peak-Hour	
	EB	WB	EB	WB	EB	WB
5:00	B	C			B	B
6:00	B	C				
7:00	C	B				
8:00	C	B				
9:00	B	B			B	B
10:00	B	B			B	B
11:00	B	C			B	B
12:00			B	C	B	B
13:00			B	C	B	B
14:00			B	C	B	B
15:00			C	C		
16:00			C	C		
17:00			C	C		
18:00			C	B	B	B
19:00			B	B	B	B

Table adopted from Traffic study on proposed HOV conversion, January 2006

**TABLE 8: ALL MIXED FLOWLANES LEVEL OF SERVICE (LOS)
YEAR 2015**

Time	HOV + Mixed Flow Lanes				All Mixed Flow Lane	
	AM Peak-Hour		PM Peak-Hour		Off Peak-Hour	
	EB	WB	EB	WB	EB	WB
5:00	B	D			B	C
6:00	C	D				
7:00	D	C				
8:00	D	C				
9:00	C	D			C	C
10:00	C	D			B	C
11:00	C	D			C	C
12:00			C	D	C	C
13:00			C	D	C	C
14:00			D	D	C	C
15:00			D	E		
16:00			D	D		
17:00			D	D		
18:00			D	D	C	C
19:00			C	B	C	B

Table adopted from Traffic study on proposed HOV conversion, January 2006

7.0 Discussion/Conclusion

Two alternatives have been evaluated in this study to determine whether the conversion of full-time HOV to part-time HOV operation would have environmental and socio-economic benefits by implementing the proposed project. The proposed project aims at improving the flow on mixed flow lanes and maximizing system capacity utilization by the motorist. No build alternative: Full-time HOV Operation (HOV + Mixed Flow Lanes) will not improve operation efficiency of the freeway. The congestion on the mixed flow lanes would remain unchanged and would increase further with time.

Build alternative (conversion of HOV to part-time operation) by utilizing the underused capacity of the HOV lane in off peak hours would help move SOV traffic on mixed flow lanes faster on the freeway and reducing congestion on the existing mixed flow lanes of the facility. In the HOV report (1994) it was determined that the vehicle occupancy rate (persons moved per vehicle) during peak hours are 2.2 as compared to 1.18 to 1.0 for mixed flow lane. It is anticipated that converting the HOV lane to mixed flow lane during off peak hours will result in the highest ratio of persons moved, as more lanes are available to SOVs during off peak period. The reduction in congestion of mixed flow lanes would have beneficial effects on the air quality, and transportation system operation efficiency. Studies have shown that diesel trucks produce less hazardous air contaminants (HAC) with increased running speed. But it was not been determined if diesel particulate matter are reduced substantially to what extent or is not effected by increased speed. The Emissions analysis (See Table 1) performed by SCAG shows no significant difference in emissions on both alternatives, as the volumes of traffic and VMT remain unchanged. The build alternative or replacement TCM (Converting HOV lane to part-time operation) would have lesser or equal emissions as compared to the emissions from the existing TCM (full-time HOV operation). This becomes obvious when considering the fact that the increase in speed of vehicles (as shown in other independent environmental studies) produces lesser pollutants in vehicles exhaust emissions. Thus it could be safely assumed that in build alternative, the mixed flow lanes during off peak period is anticipated to generate lesser pollutants than the same volume of traffic would produce from the existing condition (No Build) during peak hours congested condition. The predicted LOS in general as analyzed in the recent traffic study report (See Tables 7 & 8) shows an improvement from "C" to "B" for build alternative. The improvement in level of service (LOS) would offer more flexibility and convenience to motorists and at the same time enhance safety on the segment of the freeway by reducing the vehicles density per lane. The reduced vehicles density may contribute to lesser incidence of accidents. The improved traffic flow resulting from reduced congestion would increase the mobility of the corridor. It is concluded that build alternative (Replacement TCM) would not violate NAAQS or worsen existing violations or timely implementation of the National Ambient Air quality Standards NAAQS as discussed in the section 4.0 and 4.2 of this study.

APPENDIX ‘A’

Route 60 Proposed Cross-Section Showing Existing facility with Addition of Auxiliary Lane on Segment of SR 60 Between Nason Street Interchange and Moreno Beach Drive In the City of Moreno Valley, California EA 08-323010

APPENDIX A

Traffic Study Report

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TRAFFIC STUDY TO CONVERT FULL-TIME HOV OPERATION TO PART-TIME ON STATE ROUTE 60

**From PM R12.2-R20.4
In Riverside County**



JANUARY 2006

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I. OBJECTIVE

This study examines the traffic operational characteristics of both the High Occupancy Vehicle (HOV) and mixed-flow lanes on an eight-mile segment of State Route 60 (SR-60) in Riverside County from the East Junction of SR-60/I-215 to Redlands Boulevard. The Study focuses on evaluating the benefits of converting the full-time HOV lane to part-time in terms of improving the operation of the corridor during the off peak periods.

II. BACKGROUND

A. Purposes of HOV Facilities

The development of HOV lanes as a strategy to help solve transportation problems in metropolitan areas throughout California has steadily increased over the last two decades. In general, HOV lanes have been constructed for the following two reasons:

1. Operational Improvements: e.g., reducing traffic delays and increasing the movement of people.
2. Social and Environmental Benefits: e.g., improving air quality and conserving fuel.

Both of these goals are achieved by increasing the people moving capacity of the freeway through ridesharing. Since HOV facilities typically operate during peak hours and with greater consistency than the mixed-flow lanes, they encourage individuals to rideshare or use mass transportation. Conceptually, this shift in modes of transportation will reduce the overall traffic demand on the facility and thereby, provide operational improvements with social and environmental benefits.

In establishing the hours of operation policy for an HOV facility, it is essential to consider the unique characteristics and benefits of the facility.

The volume of traffic on this portion of State Route 60 has steadily increased over the years as population has increased along the corridor. When State Route 60 was originally built between the proposed project limits in the early 1960's, the Moreno Valley area (formerly known as Sunnymead) was a rural community.

Today, the traffic volume exceeds the capacity of the freeway (during peak hours) due primarily to the population growth in Moreno Valley, stimulated by the availability of economical housing. Furthermore, Route 60 throughout the

proposed project limits has seen changes in land-use with the addition of a number of new commercial developments. The addition of Moreno Valley's Towngate Mall and several "Big Box" retail centers has increased the number of local trips, which in turn has increased freeway volumes during off-peak periods and weekends.

B. Existing Facility

The existing configuration of State Route 60 within the project limits consists of two 12-foot mixed-flow lanes and a 12-foot HOV lane in each direction. The two directions of traffic are separated by a Type 60 concrete median barrier with a 1 foot wide striped buffer between the HOV and mixed-flow lanes. The inside and outside shoulder are 11 and 8 feet wide respectively.

The HOV lane on Route 60 was opened to traffic in March 2004 as a "full-time" HOV lane. This section of the highway is approximately eight miles long and begins at the East Junction State Route 60/I-215 to Redlands Boulevard in Riverside County. The speed limit through this segment is 65 MPH.

A map depicting existing and planned HOV lanes for District 08 along with the proposed project limits is displayed in Attachment 1.

C. Funding

The existing HOV lanes were installed as part of a locally funded project (EA46360), with the following funding sources:

Congestion Mitigation Air Quality (CMAQ)	\$31,679
Local Riverside County Measure A.....	\$4,104

D. System Planning

The Route Concept Report for this segment of SR-60 shows 4 mixed-flow lanes with 2 HOV lanes. This segment of the facility is built to its ultimate configuration. There are no major lane additions planned for this segment of freeway.

III. HOURS OF OPERATION POLICY

A. Impact of the Policy

The California Department of Transportation's *High Occupancy Vehicle (HOV) Guideline for Planning, Design, and Operations* states that "If future carpool lanes are to be built, whether 24-hours or peak periods only, the operating hours of a HOV facility should be consistent throughout the region." This is important to reduce motorist confusion and to allow a system-wide network of HOV facilities to function together

B. Policy Descriptions

There are only two basic hours of operation policies: “full-time” and “peak period only”. Both policies are currently being used in California. A “full-time” HOV policy (also referred to as a “24-hour” policy) allows eligible high occupancy vehicles exclusively to use the HOV lane at all times (24 hours per day, 7 days per week). In general, this policy is appropriate for areas that have long periods of congestion, extended peak periods of traffic and dispersed activity centers such as in Los Angeles. Since the HOV lane is never open to mixed-flow traffic, often, these facilities are separated from the mixed-flow lanes by a buffer or physical barrier.

The “peak period only” policy provides for preferential treatment of HOV’s only during the limited periods of peak demand which occur during the morning and evening commute hours. The HOV lane is opened to all traffic and operates as an additional mixed-flow lane outside of the peak traffic period and weekends.

The specific hours of operation for a “peak period only” facility should be based on the traffic patterns of the route, anticipated future demands and regional HOV plans to maximize the overall usefulness of the HOV lane. If the traffic is heavy in only one direction, then it may be appropriate to operate the lane as HOV in a single direction. If both directions have heavy volumes, then both HOV lanes should be operated simultaneously.

C. Existing Hours of Operation Policy

The HOV facility on State Route 60 currently operates on a “full-time” basis. This policy was adopted before the facility opened for the following reasons:

- A “full-time” policy would create less motorist confusion.
- Enforcement might be easier
- Ridesharing would be encouraged at all times of the day.

D. Criteria for Determining the Hours of Operation Policy

The hours of operation policy for a HOV facility is a complex issue, and can be highly political in nature. Although there are many “generic” arguments for both policies, it is essential to consider the actual traffic characteristics of the specific facility and region under consideration before establishing an hours of operation policy. Moreover, since the difference between the “peak period only” and the “full-time” policies determine whether the HOV lane restrictions should operate during the off-peak hours, the analysis should primarily focus on the off-peak period characteristics.

To determine which policy would be most effective for Route 60 and the surrounding area, the study evaluated the following issues:

1. Use of the HOV Facility (Current and Future)

Although it is difficult to define quantitatively when an HOV lane is being adequately used, traffic volumes can be analyzed to establish the overall demand for the facility. By comparing the lane volumes and level of service during the peak and off-peak periods, one can gain insight into how the HOV lane performs. If the HOV lane is underutilized while the adjacent mixed-flow lanes are operating with significantly higher volumes during off-peak hours. A “part-time” HOV facility is justified.

2. Duration of Peak Period and Congestion Periods

The traffic characteristics of the route under consideration must be evaluated to determine the length of the peak periods and congestion periods. If high traffic volumes and congestion occur for extended periods of time, then a “full-time” operation would probably serve the facility best. However, if high volumes of traffic and congestion are isolated to limited periods of time, then a “peak period only” policy is recommended for a particular facility, then the specific hours of operation should be based on the time limits of the peak periods and congestion periods.

3. Incentive for Off Peak Ridesharing

Since the primary benefits of an HOV facility are directly related to its ability to promote ridesharing, it is important to consider whether or not this is occurring during off-peak hours. A public opinion survey attempts to directly measure the ridesharing incentive of an HOV facility. Unfortunately, this method is labor intensive and is not always feasible.

Another method for assessing the amount of incentive to rideshare provided by an HOV facility is to determine the relative interest of existing carpools to use the HOV lane throughout the week. By analyzing how many of the HOV's, which are already present on the mainline, are choosing to use the HOV lane rather than an mixed-flow lane, one can gage the relative attractiveness of the HOV facility during different traffic conditions. It is reasonable to infer that the degree to which the HOV lane attracts existing HOV's during the peak and off-peak periods should strongly correlate to the facility's ability to promote ridesharing at these different time periods.

4. Safety

An analysis of the location, time of day and types of accidents occurring on SR-60 will have to be assessed to determine how converting the HOV lane from “full-

time” operation to “part-time” might affect the overall safety of the facility. It is expected that the overall densities in the mixed-flow lanes will be reduced due to the migration of some of single occupancy vehicles to the HOV lane. The reduced traffic volumes in the mixed-flow lane will increase the headway between vehicles and may result in improving safety during the off-peak periods. This view is supported by an ITS report entitled `Design of Bus and Carpool Facilities: A Technical Investigation which found that opening HOV lanes to mixed-flow traffic during off-peak periods and weekends can reduce accident rates.

5. Other Benefits

The overall operation of this corridor may also be improved by the part-time operation when non-recurrent congestion occurs during the off-peak periods due to an incident or construction/maintenance activity. With part-time HOV operation, single occupant vehicles will be able to freely use the HOV lane during such events. This will result in reduction of overall delay on the system due to incidents or construction/maintenance activities. This option is not available under “full-time “ operation scenario unless significant amount of resources are deployed for portable changeable message signs, Traffic Management Teams, public information campaigns etc. to inform motorists that the HOV lane is available to use. The part-time HOV lane operation will also reduce the number of complaints from motorists about the underutilization of HOV lane and not able to use it especially during incidents and construction closures.

IV PROJECT PROPOSAL

Currently there are two mixed-flow lanes and one full-time HOV lane in each direction on this segment of SR-60. The HOV lane is separated from the #1 mixed-flow lane by a one foot striped buffer with two designated ingress/egress locations in each direction. It is proposed to convert the full-time HOV operation to part-time. The hours of HOV operation will be from 6 A.M. to 9 A.M. and 3 P.M. to 6 P.M. in both directions of SR-60. The HOV lane will be open to use by single occupant vehicles (SOV) for the remaining hours of the day. A striped buffer between the HOV lane and the mixed-flow lanes will remain unchanged, and no striping modifications are proposed. The SOVs will be able to enter/exit the HOV lanes only at the existing designated ingress and egress locations. New signs will be installed informing motorists about the hours of HOV operation. An aggressive public awareness campaign will be launched to spread the word about the proposed change in operation. Furthermore, when additional HOV lanes are constructed on adjacent routes in the area, the hours of operation on this corridor will have to be revisited to provide for the most effective operation for the region.

V. Traffic Analysis

A. Traffic Data

To assess the benefits of implementing this proposal, traffic volumes were collected from count stations on SR-60 eastbound located just east of Day Street and westbound volumes were collected just west of Pigeon Pass Road. The volumes analyzed were by direction and split between the HOV and mixed-flow lanes. Truck traffic was assumed to be 10%.

A close examination of the existing traffic counts indicate that the traffic volumes in the westbound direction remained consistently above 2000 vph in the mixed-flow lanes from 5 A.M. to 6 P.M. The traffic volume ranged from a low of 2063 vph between 8 A.M. to 9 A.M. to a high of 2641 vph between 3 P.M. to 4 P.M. In the Eastbound direction, a spike in traffic volumes was observed from 7 A.M. to 9 A.M. during the A.M. peak period and again from 3 P.M. to 6 P.M. during the P.M. peak period, with the peak hour occurring between 5 P.M. and 6 P.M.

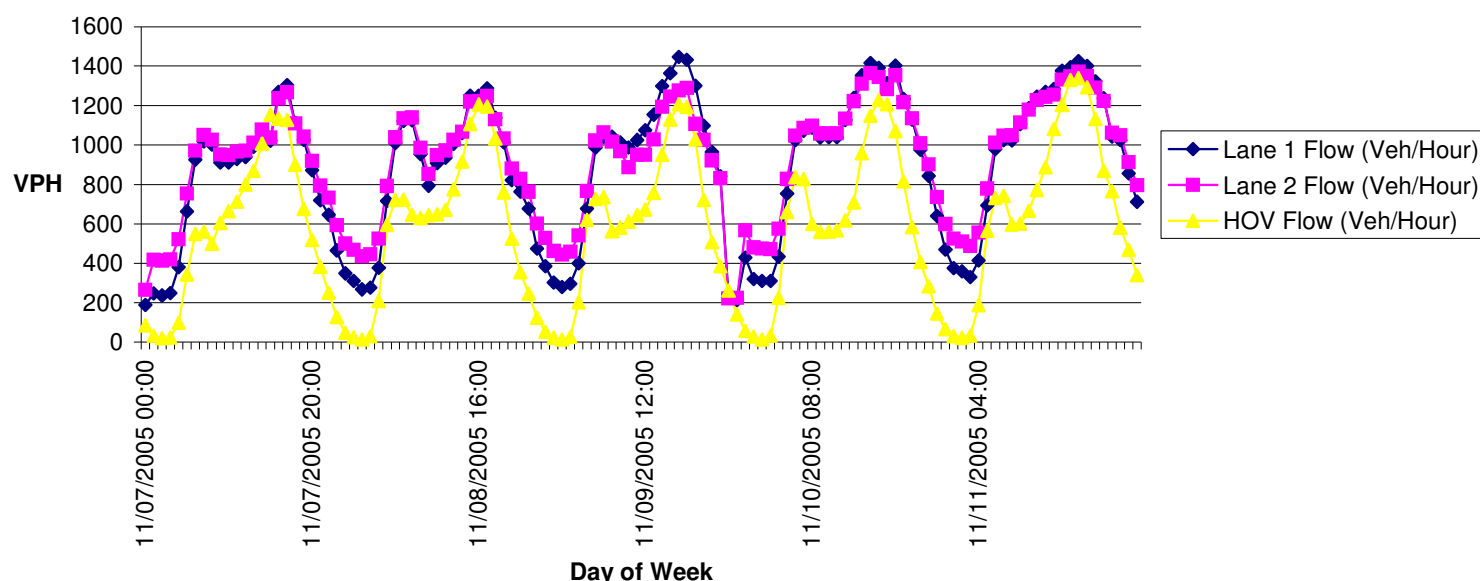
For the HOV lanes, both directions of SR-60 has a distinct peak period from 2 P.M. to 6 PM, with the highest hour in the eastbound direction from 4 P.M. to 5 P.M. and in the westbound direction from 5 P.M. to 6 P.M. During the off-peak periods, the traffic volume in the HOV lane was found to range from 40% to 50% less than during the peak periods indicative of underutilization of the lane. The existing traffic data from 5 A.M. to 7 P.M. split by direction and separated into mixed-flow lane and HOV lane volumes is shown in Table 1. Table 2 shows the projected traffic volumes of mixed-flow and HOV lane for the year 2015. A graph showing the variation of westbound and eastbound traffic volumes by hour of the day separated into HOV and mixed-flow volumes for the year 2005 and 2015 are shown in Figures 1-4.

The traffic volumes were observed for an entire workweek (Monday through Friday) and the same kinds of traffic patterns were found to repeat every day indicative of predictable travel on this corridor. A graph showing how traffic volumes varied by day of the week is shown in Figure 5.

B. Level of Service Analysis

A level of service (LOS) analysis was performed to find out how the mixed-flow and HOV lanes will operate if this proposal was to be implemented. The analysis used the Highway Capacity Software (HCS) for each hour from 5 A.M. to 7 P.M. in both directions. The purpose of the analysis was to see whether there was a significant benefit in system performance of this corridor. The analysis was

Figure 5
SR-60 Weekday Volumes Eastbound



performed for existing and proposed conditions for the existing traffic volumes and future projected traffic volumes for the year 2015. A peak hour factor (PHF) of 0.92 was used for the analysis and the terrain was considered level. The following alternatives were considered in this analysis:

Alternative 1: Full-time HOV operation under existing conditions: The traffic analysis for this alternative indicated that the LOS ranged between B and C during the A.M. peak period in both directions, while it was C during the P.M. peak period. During the off-peak period, it ranged between A at 5 A.M. and C at noontime in both directions.

Alternative 2: Full-time HOV operation under 2015 future projected conditions: For this Alternative, the LOS deteriorated to between C and D during the A.M. peak period for most part and between D and E during the P.M. peak period in both directions. The LOS during the off-peak period also got worse from B and C to C and D.

Alternative 3 Part-time HOV operation under existing conditions: For this Alternative, LOS was performed for hours outside of the peak periods of 6:00 A.M. to 9:00 A.M. and 3:00 P.M. and 6:00 P.M. During those hours, it is proposed that facility will operate with HOV lane. The LOS under this alternative improved from C to B, for the majority of hourly counts, between 9:00 A.M. and 2:00 P.M. Usage of the HOV lane during off-peak hours under part-time HOV operation is expected to increase to the same level as the mixed-flow lanes, which will be at a significantly higher level than it would be under full-time HOV operation.

Alternative 4 Part-time HOV operation under 2015 future projected conditions: For this Alternative, the LOS was also performed for hours outside of the peak periods of 6:00 A.M. to 9:00 A.M. and 3:00 P.M. to 6:00 P.M. The analysis indicated that the LOS improved from D to C and C to B, indicative of reduced delay and improved utilization of all lanes, especially during the hours of 9:00 A.M. and 2:00 P.M.

The results of the LOS analysis for all the four alternatives are presented in Table 3 and 4 on page 11 of this study.

C. Ridesharing

One of the expected benefits of an HOV facility is that it encourages carpooling that helps reduce overall congestion on the entire system. The usage of HOV lanes are in large part dependent on the amount of congestion on the mainline. It is unlikely that motorists will opt to rideshare unless there is a measurable time savings. Typically most of the ridesharing occurs during the morning peak periods. Implementing part-time HOV operations is not expected to reduce the ridesharing opportunities available to motorists. There are two Park and Ride Lots within the limits of this corridor. The usage for the Park and Ride lot located at Moreno Valley Mall was 66% with 49 of the 74 parking spaces in use, while the usage for the Park and Ride Lot located at Pigeon Pass Road was 29% with 58 of the 200 park spaces in use. This data was from the Park and Ride Survey completed by the Department in February, 2005.

VI ENVIRONMENTAL ISSUES

The project to add one HOV lane in each direction (EA 46360) was cleared under NEPA and CEQA with a Categorical Exemption/Categorical Exclusion (CE/CE). This project is located in the South Coast Air Basin (SCAB), which is in non-attainment for Carbon Monoxide (CO), Particulate matter (PM10) and Ozone. Therefore, if the original HOV project was identified as a Transportation Control Measure (TCM) in an approved State Implementation Plan (SIP), then a SIP revision to convert the full-time HOV lanes to part-time use may need to be prepared and then submitted to the Environmental Protection Agency (EPA) for their approval.

The original Riv-60 HOV project was identified as a TCM and listed individually in SCAG's prior 2001 and 2002 Regional Transportation Improvement Programs (RTIP's). FHWA/FTA approval of SCAG's conformity determination for their current 2004 Regional Transportation Plan (RTP) was dated June 7, 2004. FHWA/FTA approval of SCAG's conformity determination for their current 2004 Regional Transportation Improvement Program (RTIP) was dated October 4, 2004.

VII RECOMMENDATIONS

The traffic analysis performed in this Study clearly indicated a significant benefit in terms of system performance of this corridor if part-time HOV operation is implemented. It is recommended that the approval be granted for part-time HOV operation of this corridor for a period of three years beginning July 1, 2006. By that time, the HOV lanes on adjoining segment of I-215 should be operational. A follow-on study will then need to be performed to assess which permanent HOV strategy will be most beneficial. The justifications for asking for this change are as follows:

- The HOV lanes are not being adequately used during off-peak periods as observed by the low volume of traffic and people moved on the facility. As a result, the HOV lanes on Route 60 are likely to be perceived by the public as underutilized which may threaten the support for future HOV projects in the area.
- The periods of high volumes and congestion cover a consistent time frame. Outside of this time frame, the HOV lanes are not functioning efficiently. The surplus capacity in the HOV lane is made available to SOVs for better utilization of all lanes on this corridor.
- The HOV facility offers no appreciable incentive for ridesharing during the off-peak periods due to the lack of congestion. Without a significant ridesharing incentive, the basic operational, social and environmental objectives for the facility are not met.
- Opening the HOV lane to mixed-flow traffic during off-peak hours may improve the overall safety of the route by lowering the overall traffic densities, increasing head-ways and making the HOV lane readily available to mixed-flow traffic during lane closures and incidents.

VIII ATTACHMENTS

- 1) HOV Conversion Project Limits Map
- 2) Data Collection Point Map
- 3) SCAG Tip Funding Report
- 4) Category Exemption Environmental Document
- 5) Original HOV Report
- 6) Existing SR-60 Cross Section
- 7) Level of Service Calculation Worksheets

APPENDIX 'B'

AIR QUALITY MONITORING DATA

[California Home](#) [ARB: Home](#) [Search Site Map](#) [Links](#) [Software](#) [Contact Us](#) [AQD: Home](#)

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

Highest 4 Daily PM_{2.5} Measurements
Riverside-Magnolia

[Redacted]

[FAQs](#)

Year:	2003		2004		2005	
	Date	Measurement	Date	Measurement	Date	Measurement
National:						
First High:	Oct 9	73.3	Mar 19	93.8	Oct 22	94.9
Second High:	Mar 13	59.5	Mar 22	67.1	Nov 6	49.1
Third High:	Sep 30	56.2	Apr 9	53.7	Nov 12	41.0
Fourth High:	Oct 27	55.5	Jul 5	51.0	Mar 11	39.4
California:						
First High:	Oct 9	73.3	Mar 19	93.8	Oct 22	94.9
Second High:	Mar 13	59.5	Mar 22	67.1	Nov 6	49.1
Third High:	Sep 30	56.2	Apr 9	53.7	Nov 12	41.0
Fourth High:	Oct 27	55.5	Jul 5	51.0	Mar 11	39.4
# Days Above Nat'l Standard:	1		2		1	
3-Year Average 98th Percentile:	62		58		*	
1-Year 98th Percentile:	56.2		53.7		*	
National 3-Year Average:	25		23		20	
National Annual Average:	22.6		20.8		18.0	
State 3-Yr Maximum Average:	23		23		23	
State Annual Average:	22.6		*		*	

[Go Backward One Year](#)
[New Top 4 Summary](#)
[Go Forward One Year](#)

Notes: All concentrations are expressed in micrograms per cubic meter.

State exceedances are shown in yellow . National exceedances are shown in orange .

An exceedance is not necessarily a violation.

State and national statistics may differ for the following reasons:

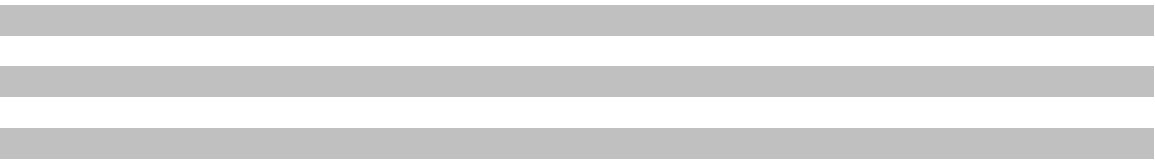
State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods.

State and national statistics may therefore be based on different samplers.

State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

3-Year statistics represent the listed year and the 2 years before the listed year.

* There was insufficient (or no) data available to determine the value.



Switch:	Hourly Ozone	8-Hour Ozone	PM10	Carbon Monoxide	Nitrogen Dioxide	Sulfur Dioxide	Hydrogen Sulfide
---------	-----------------	-----------------	------	-------------------------------------	---------------------	-------------------	---------------------



[California Home](#) [ARB: Home](#) [Search Site Map](#) [Links](#) [Software](#) [Contact Us](#) [AQD: Home](#)



Highest 4 Daily PM2.5 Measurements
Riverside-Rubidoux

 [FAQs](#)

Year:						
	2003		2004		2005	
	Date	Measurement	Date	Measurement	Date	Measurement
National:						
First High:	Oct 26	104.3	Mar 19	91.7	Oct 22	98.7
Second High:	Oct 29	89.2	Jul 5	77.1	Oct 23	95.9
Third High:	Oct 7	86.9	Mar 21	74.5	Oct 21	82.1
Fourth High:	Oct 8	79.1	Mar 20	73.6	Jul 5	79.8
California:						
First High:	Oct 26	104.3	Mar 19	91.7	Oct 22	98.7
Second High:	Oct 29	89.2	Jul 5	77.1	Oct 23	95.9
Third High:	Oct 7	86.9	Mar 21	74.5	Oct 21	82.1
Fourth High:	Oct 8	79.1	Mar 20	73.6	Jul 5	79.8

# Days Above Nat'l Standard:	8	5	4
3-Year Average 98th Percentile:	72	67	65
1-Year 98th Percentile:	76.6	59.5	58.3
National 3-Year Average:	27	24	22
National Annual Average:	24.8	22.1	21.0
State 3-Yr Maximum Average:	25	25	25
State Annual Average:	24.8	*	21.0

[Go Backward One Year](#)
[New Top 4 Summary](#)
[Go Forward One Year](#)

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State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods.
State and national statistics may therefore be based on different samplers.

State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

3-Year statistics represent the listed year and the 2 years before the listed year.

* There was insufficient (or no) data available to determine the value.

Switch:
 [Hourly Ozone](#)
[8-Hour Ozone](#)
[PM10](#)
[Carbon Monoxide](#)
[Nitrogen Dioxide](#)
[Sulfur Dioxide](#)
 Hydrogen Sulfide

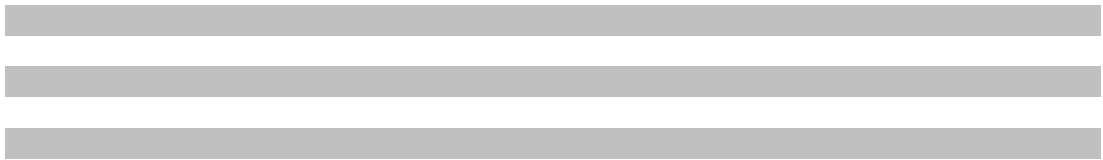


Highest 4 Daily PM2.5 Measurements
Palm Springs-Fire Station

[FAQs](#)

Year:	2003		2004		2005	
	Date	Measurement	Date	Measurement	Date	Measurement
National:						
First High:	Oct 6	21.2	Jul 5	27.1	Oct 22	26.1
Second High:	Jul 26	20.5	Oct 24	25.5	Dec 18	25.0
Third High:	Nov 8	20.0	Jan 19	23.3	Jan 22	23.1
Fourth High:	Jul 8	19.6	Dec 8	20.6	Jan 7	22.2
California:						
First High:	Oct 6	21.2	Jul 5	27.1	Oct 22	26.1
Second High:	Jul 26	20.5	Oct 24	25.5	Dec 18	25.0
Third High:	Nov 8	20.0	Jan 19	23.3	Jan 22	23.1
Fourth High:	Jul 8	19.6	Dec 8	20.6	Jan 7	22.2
# Days Above Nat'l Standard:	0		0		0	
3-Year Average 98th Percentile:	25		22		*	
1-Year 98th Percentile:	20.0		23.3		*	
National 3-Year Average:	9		9		*	
National Annual Average:	9.0		8.9		*	
State 3-Yr Maximum Average:	10		10		9	
State Annual Average:	*		8.8		*	

[Go Backward One Year](#)[New Top 4 Summary](#)[Go Forward One Year](#)



Notes: All concentrations are expressed in micrograms per cubic meter.

State exceedances are shown in yellow . National exceedances are shown in orange .

An exceedance is not necessarily a violation.

State and national statistics may differ for the following reasons:

State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods.

State and national statistics may therefore be based on different samplers.

State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

3-Year statistics represent the listed year and the 2 years before the listed year.

* There was insufficient (or no) data available to determine the value.



Switch:

Hourly Ozone	8-Hour Ozone	PM10	Carbon Monoxide	Nitrogen Dioxide	Sulfur Dioxide	Hydrogen Sulfide
----------------------------------	----------------------------------	----------------------	-------------------------------------	--------------------------------------	-------------------	---------------------



Highest 4 Daily PM10 Measurements
Riverside-Rubidoux

[FAQs](#)

Year:	2003		2004		2005	
	Date	Measurement	Date	Measurement	Date	Measurement
National:						
First High:	Oct 27	164.0	Mar 19	137.0	Oct 22	123.0
Second High:	Jul 5	159.0	Jul 5	131.0	Nov 30	98.0
Third High:	Oct 9	134.0	Oct 6	122.0	Apr 16	96.0
Fourth High:	Oct 24	133.0	Mar 22	119.0	Oct 7	92.0
California:						
First High:	Oct 27	159.0	Mar 19	133.0	Oct 22	119.0
Second High:	Jul 5	154.0	Jul 5	127.0	Nov 30	95.0
Third High:	Oct 9	129.0	Oct 6	118.0	Apr 16	93.0
Fourth High:	Oct 24	129.0	Mar 22	115.0	Oct 7	89.0
Measured:						
# Days Above Nat'l Standard:	2		0		0	
# Days Above State Standard:	59		70		67	
Estimated:						
3-Yr Avg # Days Above Nat'l Std:	2.0		2.0		2.0	
# Days Above Nat'l Standard:	6.2		0.0		0.0	
# Days Above State Standard:	201.4		210.1		198.2	
National 3-Year Average:	59		56		54	
National Annual Average:	55.6		54.8		51.8	
State 3-Yr Maximum Average:	56		56		55	
State Annual Average:	55.1		53.5		50.4	
Year Coverage:	100		100		100	

[Go Backward One Year](#) [New Top 4 Summary](#) [Go Forward One Year](#)

Notes: All concentrations are expressed in micrograms per cubic meter.

State exceedances are shown in yellow . National exceedances are shown in orange .

An exceedance is not necessarily a violation.

State and national statistics may differ for the following reasons:

State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods.
State and national statistics may therefore be based on different samplers.

State statistics for 1998 and later are based on *local* conditions (except for sites in the South Coast Air Basin, where State statistics for 2002 and later are based on *local* conditions).
National statistics are based on *standard* conditions.

State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

Measurements are usually collected every six days. Measured days counts the days that a measurement was greater than the level of the standard; Estimated days mathematically estimates how many days concentrations would have been greater than the level of the standard had each day been monitored.

3-Year statistics represent the listed year and the 2 years before the listed year.

Year Coverage indicates how complete monitoring was during the time of the year when concentrations are highest. 0 means there was no coverage; 100 means there was complete coverage.

* There was insufficient (or no) data available to determine the value.

Switch: [Hourly Ozone](#) [8-Hour Ozone](#) [PM2.5](#) [Carbon Monoxide](#) [Nitrogen Dioxide](#) [Sulfur Dioxide](#) Hydrogen Sulfide

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Highest 4 Daily PM10 Measurements Perris

[FAQs](#)

Year:	2003		2004		2005	
	Date	Measurement	Date	Measurement	Date	Measurement
National:						
First High:	Feb 2	142.0	Jun 26	83.0	Oct 7	80.0
Second High:	Jul 8	116.0	May 15	79.0	Sep 19	70.0
Third High:	Oct 24	116.0	Oct 6	72.0	Nov 6	69.0
Fourth High:	Jul 14	80.0	Mar 22	69.0	Sep 1	66.0
California:						
First High:	Feb 2	135.0	Jun 26	79.0	Oct 7	75.0
Second High:	Oct 24	111.0	May 15	75.0	Sep 19	66.0
Third High:	Jul 8	110.0	Oct 6	69.0	Nov 6	66.0
Fourth High:	Jul 14	76.0	Mar 22	66.0	Sep 1	63.0
Measured:						
# Days Above Nat'l Standard:	0		0		0	
# Days Above State Standard:	17		15		18	

Estimated:			
3-Yr Avg # Days Above Nat'l Std:	0.0	0.0	0.0
# Days Above Nat'l Standard:	0.0	0.0	0.0
# Days Above State Standard:	*	*	110.1
National 3-Year Average:	43	43	41
National Annual Average:	43.9	41.4	39.1
State 3-Yr Maximum Average:	43	43	37
State Annual Average:	*	*	37.1
Year Coverage:	88	97	99



Go Backward One Year	New Top 4 Summary	Go Forward One Year
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Notes: All concentrations are expressed in micrograms per cubic meter.

State exceedances are shown in yellow . National exceedances are shown in orange .

An exceedance is not necessarily a violation.

State and national statistics may differ for the following reasons:

State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods.
State and national statistics may therefore be based on different samplers.

State statistics for 1998 and later are based on *local* conditions (except for sites in the South Coast Air Basin, where State statistics for 2002 and later are based on *local* conditions).
National statistics are based on *standard* conditions.

State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

Measurements are usually collected every six days. Measured days counts the days that a measurement was greater than the level of the standard; Estimated days mathematically estimates how many days concentrations would have been greater than the level of the standard had each day been monitored.

3-Year statistics represent the listed year and the 2 years before the listed year.

Year Coverage indicates how complete monitoring was during the time of the year when concentrations are highest. 0 means there was no coverage; 100 means there was complete coverage.

* There was insufficient (or no) data available to determine the value.



Riverside County Regional Complex
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Phone (951) 787-7141 • Fax (951) 787-7920 • www.rctc.org

November 14, 2006

Jonathan Nadler
Planning and Policy Department
Environmental Planning Division
Southern California Association of Governments
818 West Seventh Street, 12th Floor
Los Angeles, California 90017

Re: November 28, 2006 TCWG RIV061101 Calimesa Pedestrian Walkway TCM Designation
Discussion Agenda Item Addition Request

As part of Amendment 02 to the 2006 Regional Transportation Improvement Program (RTIP), a new project for the City of Calimesa has been submitted. The project will construct approximately 1,773 linear feet of new sidewalks in Calimesa on Third St between County Line Rd and Avenue L.

RCTC is requesting this project be added to the November 28th TCWG agenda to evaluate whether or not it should be designated as a TCM.

The programmed code assigned to the project is a "NCN27" which is described as "Pedestrian Facilities – New" per page 64 of the 2006 RTIP Guidelines. In the TCM section of the 2006 RTIP Guidelines (pages 33-36), the guidance indicates that projects with a NCN27 program code should be designated as a Transportation Control Measure (TCM).

The basic definition of a TCM as stated in the RTIP Guidelines on page 33 in Section IV, Part A provides the following:

"Transportation Control Measure (TCMs) are specific transportation projects and programs committed to help improve air quality. TCMs are required by the federal Clean Air Act in nonattainment areas that are classified as "severe" and above (§7511a(d)(1)), and provide multiple benefits, including reductions of emissions and improvements to mobility and accessibility and can help support better urban form."

Section IV, Part B provides a further definition for a TCM and states:

"A TCM-type project or program is any transportation project or program that reduces vehicle use or changes traffic or congestion conditions for the purposes of reducing emissions from transportation sources and improving air quality."

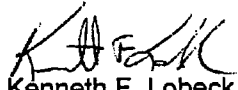
The primary purpose of Calimesa Pedestrian Walkway project as programmed in RIV061101 intends to eliminate an operational safety hazard for school children who tend to walk on the street rather than on the non paved area in the project limits. When inclement weather occurs, children will walk on the paved street rather than through the mud. Walking on the paved street further increases safety issues for the school children traversing the area.

Based on a review of the City of Calimesa's project for inclusion in the RTIP, the project has been programmed and submitted as a regular exempt, non TCM project. However, this appears to conflict with the RTIP Guidelines based on the definition for a TCM. Therefore, RCTC is requesting clarification of the below areas to determine how this project meets the definition of a TCM to complete required RTIP programming actions:

1. Is Third St in Calimesa included in the modeling network and what direct emission benefits would result from this project?
2. How would the emission benefits be quantified and calculated?
3. In the unlikely event the project was delayed or dropped, what appropriate methodology could be used to find a suitable substitute?

Please direct any questions concerning this request to Ken Lobeck, at 951.787-7141 or via email at klobeck@rctc.org.

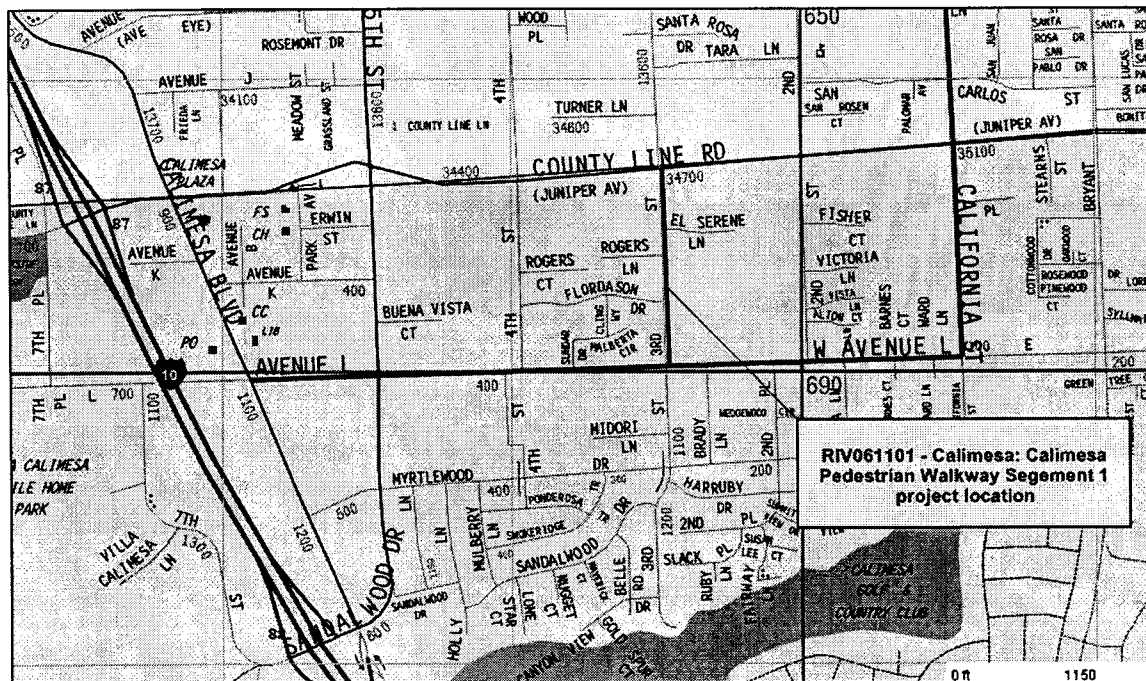
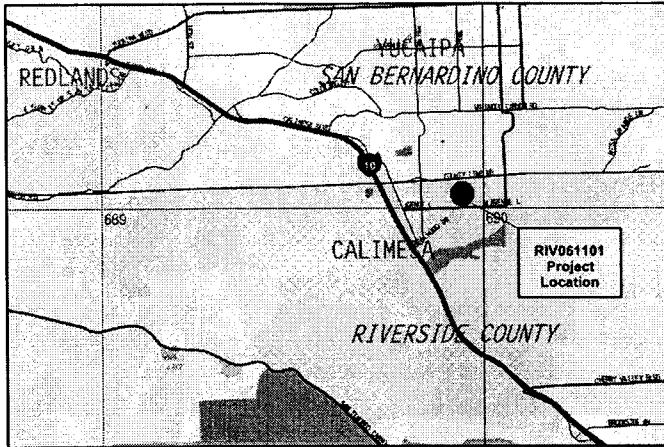
Thank you,


Kenneth F. Lobeck
Staff Analyst

Attachments:

1. RIV061101 TIP sheet
2. Project Location Map
3. Project Location Views

RIV061101
Lead Agency: City of Calimesa
Project: Calimesa Pedestrian Walkway Segment 1
Project Location Map



RIV061101
Lead Agency: City of Calimesa
School Pedestrian Walkway Segment 1:
On Third St from County Line Rd to Avenue L



View of Third St looking south from the County Line Rd/Third St intersection.

Third St is a residential road in the City of Calimesa.



View of Third St looking north near the Avenue L/Third St intersection

